

THE AUTOMOBILE

WEEKLY

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10 CENTS

RACING ON THE BEACH AT NEWPORT.

Special Correspondence.

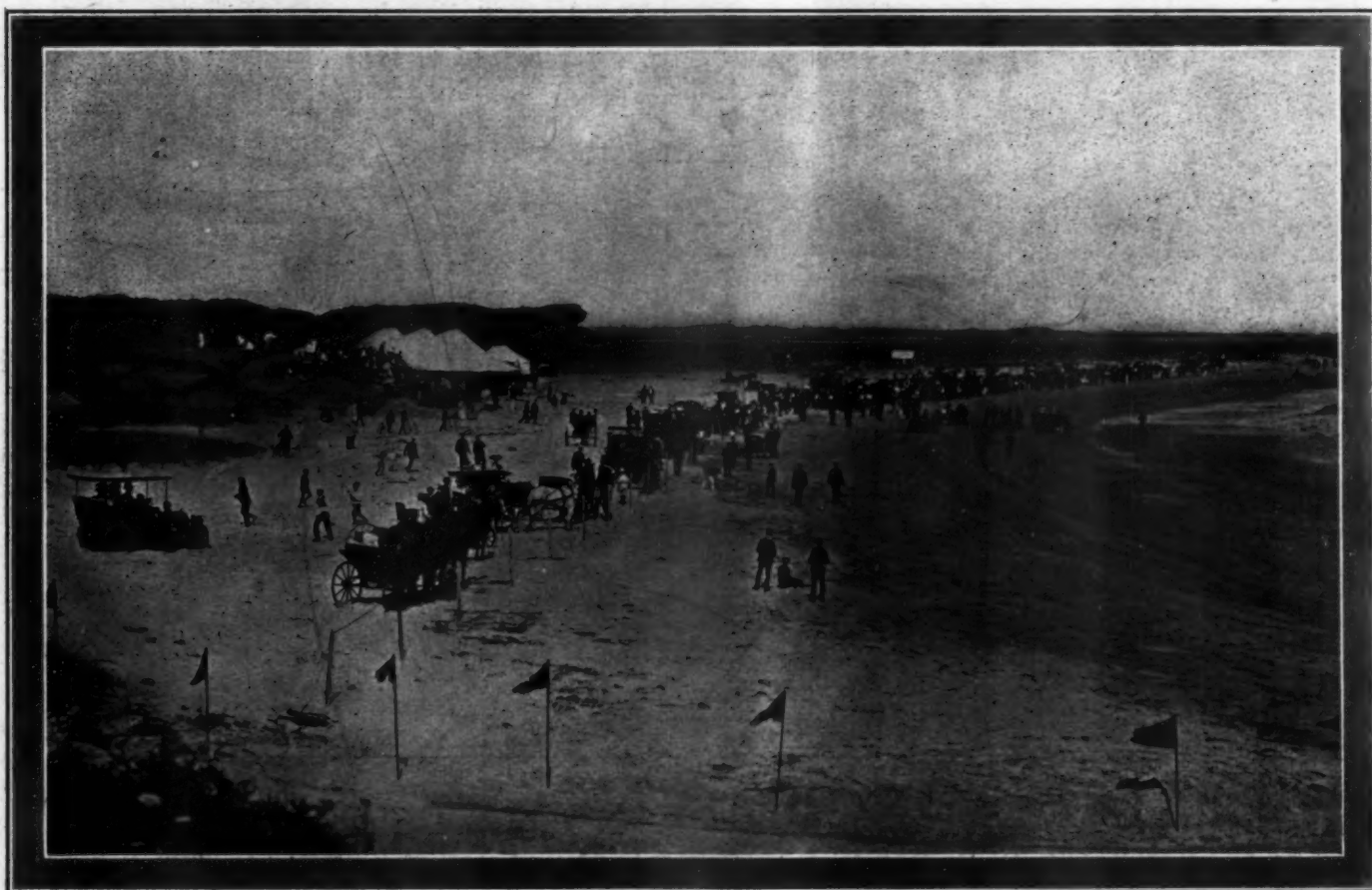
NEWPORT, R. I., July 30.—Taking its cue from the Florida resort the premier summer colony of the Atlantic coast held a race meeting to-day on the sands at Sachuest Beach. At least it attempted to hold a meet, and in so doing displayed a degree of skill and intelligence that possibly might pilot a croquet or ping pong tournament to a successful conclusion. Newport likes to be original where no brain

ideal for fast racing and for this reason, and the poor race management, it was quite an inconsequential affair. The only really spirited event was the race between E. R. Thomas and H. S. Harkness, each driving a 60-horsepower Mercedes. Thomas won, covering the 1 1-8 mile stretch in 1:02 3-4, though at the finish Harkness was going at a better gait.

The race meet was held under the auspices

marked off on Sachuset or "Second" Beach, one of the three beaches of Newport, and which ordinarily is used only to a limited extent by bathers. It is a stretch of about 1 1-2 miles of fairly clean hard sand at low tide and lies outside the boundaries of Newport proper.

Apparently for the sake of being "original" the responsible committee laid off a 1 1-8-mile course so that no ready comparisons



VIEW OF THE COURSE ON SACHUEST BEACH NEWPORT, RHODE ISLAND, WHERE AUTOMOBILE RACES WERE HELD JULY 30.

fag is involved and the splendid stupidity of to-day's performance was not marred by a single intrusion of any ordinary common sense idea, except that of the race itself, and that was borrowed from Ormond.

This seaside course is not by any means

of the Newport Amusement Association, of which Reginald C. Vanderbilt is first vice-president. He was indeed the moving spirit in the affair, though responsibility for actual mismanagement rested on the officials of whom he was not one. The course was

between the speeds attained here and elsewhere could be made. Although the beach in this particular bay on the shore line is slightly curved, it gives practically a straight-away course. At the end nearest the approach from the road the finish line was

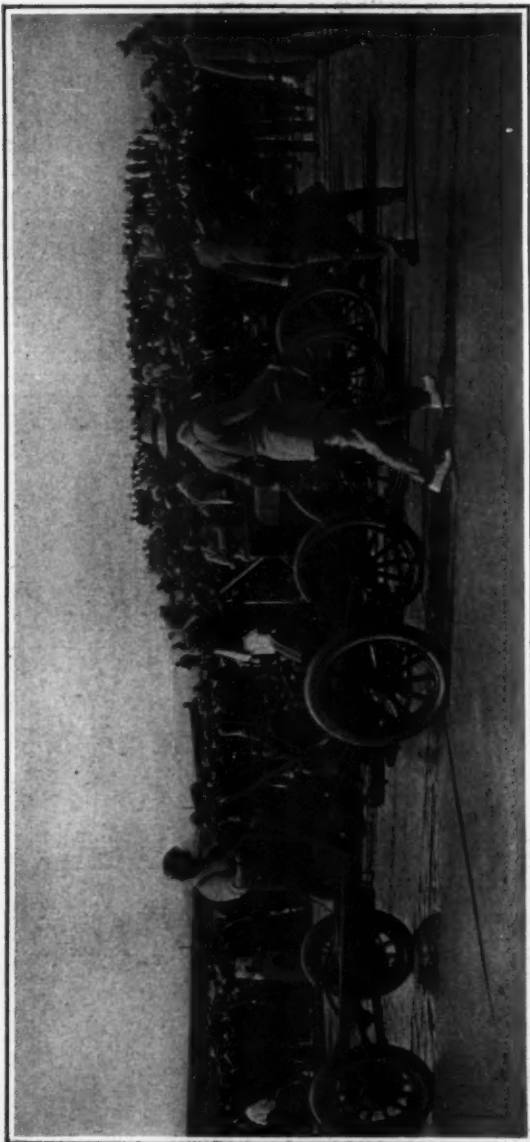
stretched and here the various officials grouped themselves, with the exception of the starter J. K. Sullivan, a local "expert," who was at the further end of the beach. From the road leading along the coast line a rather steep pitch leads down to the sands and along the top of the cliffs a number of spectators in heavy vehicles and afoot looked at the show.

When the first race was called there was a long fringe of vehicles, motor driven and horse drawn, including several smart four-in-hands, extending for about half a mile

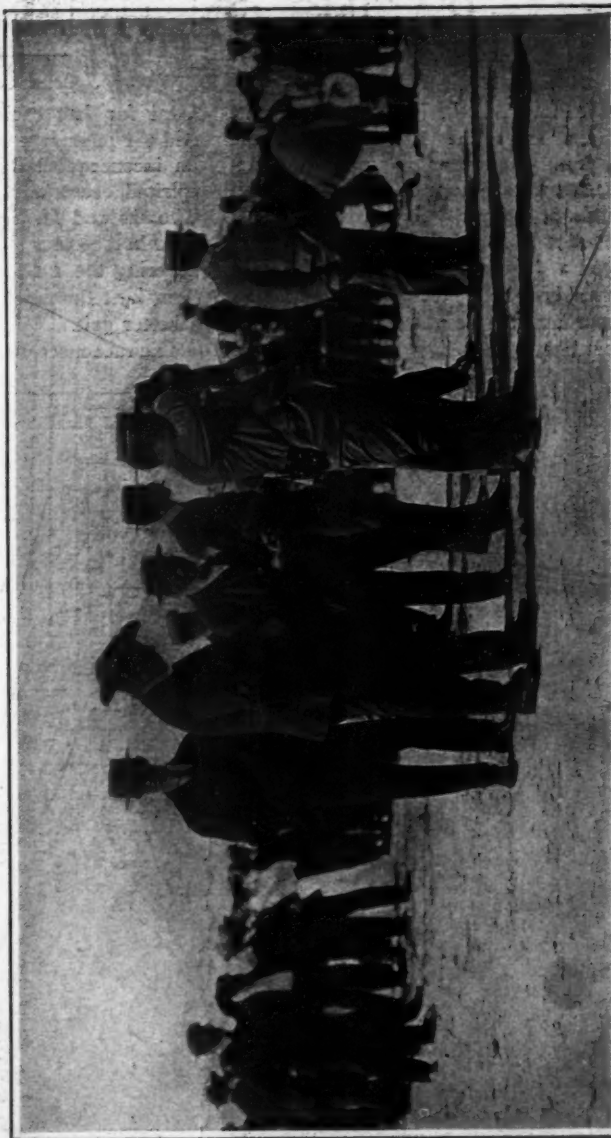
The program on its cover stated that the meet was held "under the rules and with the sanction of the A. A. Association." A glance at the inside pages showed that while the "sanction" may have been secured, the classification of entries was far enough "under" the rules, so that it could not be reached with a deep-sea sounding line. According to the card, the classification was by horsepower, with vehicles of 600 and 1,400 pounds in the same event, and some that were slated were above the maximum limit of weight.

when he saw it drop. They then started their watches and later did the best they knew to time the machines at the finish.

Three false starts, including a runaway, were needed to get the second race completed. This had the result, however, of showing the superior speed of Harry Hamlin's 24-horsepower Panhard, which was stripped down in record fashion. Each time he led to the tape, the others also running. In the final attempt Hamlin finished in 1:35 1-4, with John Jacob Astor in a 20-horsepower Mercedes second, M. C. Bishop's 16-



AN UNUSUAL RACE FEATURE — CONTESTANTS AT THE FINISH LINE READY TO RUN BACK TO THE STARTING LINE.
The Second Event at Newport Was Run Off Several Times Before the Judges Declared It a Race.



GROUP OF OFFICIALS AT THE FINISH LINE AT THE AUTO RACES ON SACHUEST BEACH, NEWPORT, R. I.
Official with Binoculars Waiting to Notify Drivers When the Starter's Flag Has Fallen.

from the finish line. A fine summer sun shone down on the pretty costumes of the women and gave a bright contrast to the gray tweeds that the men of the colony affect. There was enough breeze blowing to carry the sand that the cars stirred up on the dry spots in stinging spindrift into the faces of the drivers.

It was altogether a pleasant scene and as a purely local meet would no doubt have given the pleasure-loving colony good fun for an afternoon with a subject for small talk other than Harry Lehr's Antics.

In the purely "local" events this was not more serious than the purpose of the promoters, but in the "open to all" it was a plain violation of the rules that friendship could not cover.

Motorcycles went to the line soon after 3 o'clock, and the first race ended in a runaway for Oscar Hedstrom on a 13-4-horsepower 105 pound Indian in 1:27.

The Newport idea was cleverly displayed in the timing. At the finish line one of the officials with a prism binocular watched the starter's flag and called to the timekeepers

horsepower Fiat third, and Reginald C. Vanderbilt's 22-horsepower Mercedes last. The latter car was driven by a French chauffeur, but did not make a winning in any event.

In the race for electrics the cars driven by the owners gave an amusing exhibition of a sprint at such a speed as the Newport traffic regulations allow.

A. E. Morrison, of Boston, put the Peerless ahead of the foreign machines in the class for gasoline cars not exceeding 24-horsepower. His time in the race with the



SPECTATORS' CARS DRIVING OFF THE BEACH AFTER FINISH OF THE RACES.

Astor and Vanderbilt Mercedes cars was 1:29, and in the final he distanced Hamlin's Panhard, finishing in 1:27. Otto Nestman also upheld the domestic product when he won in the gasoline class, under 10 horsepower, in the Stevens-Duryea, in 1:35 1-2.

During the races the officials persisted in standing out on the course away from the rope, and in the path of the finishing cars. The crowd followed their example, and barely gave passage to some of the fast machines as they came across the line. As a consequence the attention of the officials was distracted from their proper duties to futile efforts to clear the course. Newport police had been brought down for appearance sake, but they had no jurisdiction over

the 3,000 persons who witnessed the races on Sachuest Beach.

The following were the officials of the meet: Judges, Daniel B. Fearing, William R. Hunter and William E. Carter; Timers, F. B. Garrettson, Hamilton Fish Webster and Joseph S. Milne; Referee, J. M. Clarke; Umpires, Clarence W. Dolan and E. L. Winthrop, Jr.; Starter, J. K. Sullivan.

Following are the summaries:

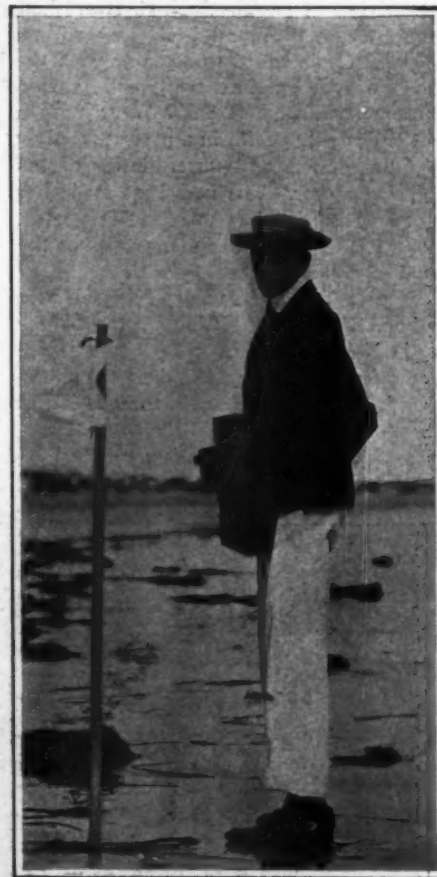
Class 1.—(Open) Motorcycles. Prize, Silver Bowl, value, \$75. Won by Oscar Hedstrom, Indian 1 3-4-horsepower; J. McNevin, Rambler, 1 3-4-horsepower, second; B. Thaw, Jr., Indian 1 3-4-horsepower, third. Time, 1:27.

Class 4.—(Local) Gasoline Cars exceed-

ing 10-horsepower, not exceeding 24-horsepower. Prize, Silver Cup, value, \$100. Won by H. Hamlin, Panhard, 24-horsepower; J. J. Astor, Mercedes, 20-horsepower, second; Miss M. C. Bishop, Fiat, 16-horsepower, third; R. C. Vanderbilt, Mercedes, 18-22-horsepower, fourth. Time, 1:35 1-4.

Class 3.—(Local) Gasoline Cars not exceeding 10-horsepower, to be raced in road condition. Prize, Silver Cup, value, \$100. First Heat. Won by P. F. Conroy, Stevens-Duryea, 7-horsepower; J. J. Astor, Cadillac, 8-horsepower, second; T. Shaw Safe, De Dion Bouton, 6-horsepower, third. Time, 1:35 1-2.

Second Heat. Won by P. Jones, Renault, 10-horsepower; W. P. Thompson, Renault,



AN INTERESTED SPECTATOR.



JOHN J. ASTOR AT THE WHEEL OF HIS MERCEDES CAR STRIPPED FOR RACING.

10-horsepower, second; P. D. Martin, Renault, 10-horsepower, third. Time, 2:00.

Final Heat. Won by Conroy; Jones, second. Time, 1:56 3-5.

Class 2.—(Local) Electric Automobiles. Prize, Silver Cup, value, \$100. Won by H. Bull, Jr., Waverly, 3-horsepower; H. Oelrichs, Jr., Waverly, 3-horsepower, second; E. Dyer, Jr., Waverly, 3-horsepower, third; J. M. Clarke, Pope, 3-horsepower, fourth. Time, 3:32 1-2.

Class 5.—(Open) Gasoline Cars not exceeding 24-horsepower. Prize, Silver Cup, value, \$100.—First heat—Won by A. E. Morrison, Peerless, 24-horsepower; J. J. Astor, Mercedes, 20-horsepower, second; M. C. Bishop, Fiat, 16-horsepower, third. Time, 1:28.

Second heat—Won by H. Hamlin, Panhard, 24-horsepower; A. E. Morrison, Peerless, 24-horsepower, second; M. C. Bishop, Fiat, 16-horsepower, third. Time, 1:37.

Final heat—Won by Morrison; Hamlin, second. Time, 1:27.

Class 5.—(Open) Gasoline Cars exceeding 24-horsepower. Prize, Silver Cup, value, \$150. Won by E. R. Thomas, Mercedes, 60-horsepower; H. S. Harkness, Mercedes, 60-horsepower, second. Time, 1:02 3-4.

Steam Auto Boat.

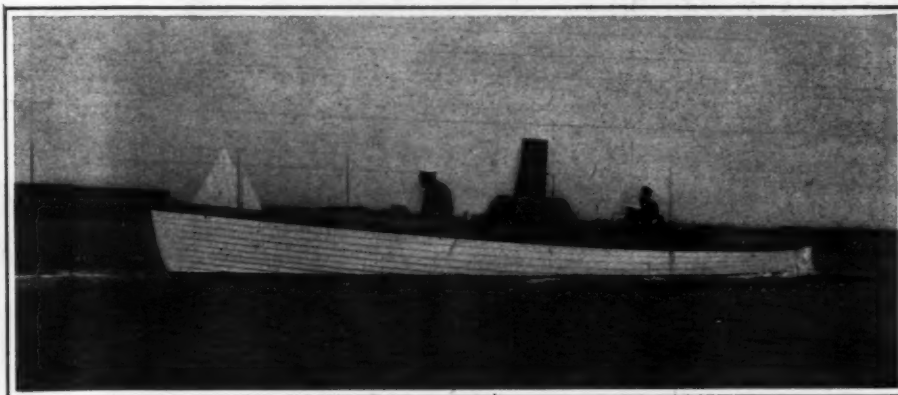
While steam has been almost entirely ignored of late in the search for extreme speed in light launches, it would seem that at least one expert still considers it a worthy rival of gasoline. N. G. Herreshoff has for some time past been busy with a speed launch intended to compete with the fastest of the gasoline craft, and bearing the suggestive name of *Swift Sure*; indicating the designer's faith in a perfect freedom from the doubts and uncertainties of the explosion motor. The new boat made her debut on Saturday, in a small but very select company, the only other starters being the *Standard* and the *Vingt-et-Un II*.

The occasion was the second launch race of the Atlantic Yacht Club on the Lower Bay in New York Harbor, and good prizes were offered, but they failed to tempt the many fast auto boats now in commission in New York waters.

The *Swift Sure* is a handsome launch of the general type made known through the

Yacht Club station at Sea Gate up the Narrows and around the buoy off Robin's Reef and return, two rounds making twenty nautical miles.

The start was made at 2:30 p. m., with nearly half the ebb tide run out and a moderate southerly breeze up the Narrows against it, making a chop. The *Standard* stated with a lead of 27 seconds over the



STEAM AUTO BOAT "SWIFT SURE." DESIGNED BY N. G. HERRESHOFF, AT LOW SPEED.

Swift Sure, and at the end of the first round she had only held her own, but at the finish she was ahead by 2 minutes 46 seconds. The time of the *Standard* for the first round was 28 minutes 52 seconds, making her speed 20.75 knots, as compared with 20.37 for the *Swift Sure*. On the second round the *Standard* made 21.50 knots, against 19.90 for the steamer. The *Standard's* speed for

and weather are not at hand, but will arrive by mail in another week. The race was run in heats, five boats, representing England, France and America, competing.

The American boat *Challenger*, the English boat *Napier II.*, and the French boat *Bayard* started in the first heat, *Challenger* getting away well. The *Bayard* fouled her propeller and *Napier II.* lost nearly a minute in crossing the line and then stopped short after going about 100 feet. In twenty seconds the English boat began running again and went after *Challenger*, which when about a quarter mile from the first outer mark, of which there were three, began missing explosions in her forward cylinders. By the time the third mark was passed the whole forward engine was dead in *Challenger*, which so slowed her that *Napier II.* passed her half a minute later and won the heat with a long lead in 25:10, including the minute lost in starting.

The *Napier Minor* (English) and *Trèfle-à-Quatre* (French) covered the course in the second and third heats alone to qualify.

In the fourth heat the two English boats, *Napier II.* and *Napier Minor*, raced for supremacy, *Napier II.* winning by 19 seconds in 24:04.

Although *Napier II.* qualified for the final, it was necessary to substitute *Napier Minor* for her as she was leaking badly at the bow, where she had been damaged in a previous race. This brought only the English boat and the French challenger, *Trèfle-à-Quatre*, together in the deciding event. The French launch was one second slower than her English opponent in starting, and after crossing the line showed inferior speed, being soon distanced and finishing 1 minute 25 seconds later than *Napier Minor*, which won in 23:01, or at the rate of twenty-three statute miles an hour.



REGINALD C. VANDERBILT AT THE WHEEL OF HIS MERCEDES TOURING CAR.

Scout and *Mirage*, with none of the freak features of the latest gasoline boats. She is 51 feet on the water line, 6 feet in breadth, and carries a triple expansion engine of 100-horsepower at 700 revolutions, her boiler being tested for a working pressure of 270 pounds.

The course was from off the Atlantic

the full course was 21.12 and that of the *Swift Sure* was 20.13.

Running alone, the *Vingt-et-Un II.* made the first round in 29 minutes 4 seconds and the full course in 57 seconds 54 seconds, a speed of 20.72 knots, a very good performance as compared with the *Standard*, which is a larger boat.

TOURISTS HALF WAY TO ST. LOUIS.

An Enthusiastic Body of Automobilists Arrives in Cleveland After a Seven Day Journey on Good, Bad and Indifferent Roads.

Special Correspondence.

CLEVELAND, Aug. 2.—After seven days of touring and one day of rest, the drivers, friends and newspapermen occupying seats in the twenty-four cars now *en route*, arrived in this city to-day. Without exception every one connected with the run is delighted with the success that has greeted the efforts of the American Automobile Association touring committee and the general good time enjoyed on the road.

One or two have fallen by the way, it is true, and one or two, owing to a pressure of business, could not indulge in the entire 1,500-mile run, but almost all who started are still with the "bunch" and enjoying themselves. There are several ladies in the party, more than there have been in any other long tour or endurance held in America.

There are laughable incidents, lots of them. In the first place, every one declares most emphatically that this is a pleasure tour—not a race or endurance run—and they are sincere in these declarations. Yet these same individuals when a car comes rushing up behind them shove their throttle wide open, advance the spark, and bend low over their steering wheel, advance their spark until their engine whether it be one, two or four-cylinder, is working to its fullest capacity. They take "thank-you-ma'ams" and "chuck holes" as though they were merely shadows on the road, and if they are eventually distanced by a car possessing more power and speed than their own, declare most emphatically that their gasoline gave out.

No, there is no racing on this trip, yet why do owners of machines capable of traveling forty miles an hour get up at 3:30 a.m. and without a bite to eat drive their cars at their limit toward the night control only 100 miles away, an easy five-hour trip? And why is any one so angry when he hears that the driver of a Smith or a Jones machine was called at 2:30 a.m. and has been in at the night control three-quarters of an hour before he arrives with his Brown racer? The secret of the whole matter is simply that the newspapers chronicle each day who was the first to arrive in town and what machine he drove.

The start from New York city was scheduled for 9 a.m., but was made about 9:45 o'clock. The early starters from Poughkeepsie were called at 6 a.m., from Albany at 5 a.m., from Utica at 4 a.m., and one man from Rochester was aroused at 3:30 a.m. in order to be the first to arrive in Buffalo. So anxious are the tourists to arrive at the night stops that noon stops are cut out altogether, not more than a dozen persons in all taking meals at the designated midday stop.

Of course, there are some who do no racing, who run their cars on schedule, take in the noon-day stop, and arrive about 4 or 5 o'clock at the end of the day's run. Some do this because they think it the proper way to travel on a tour of this kind. Some do it because they possess slow cars and know

the squadron. Jay wishes to discourage the racing spirit that has cropped out on all sides and quietly pilots his machine along in the dust of others with the remark: "I'll show those fellows some time what this little White can do when I want to run it."

Messrs. Post, Gillette and Whipple, officers of the A. A. A., have all refrained from joining in the racing, although the White steamer, driven by Post and the Pope-Hartford and Mercedes of the other two are built for speed.

Thus far there have been no very serious accidents, although several of the machines have suffered from minor troubles. Harold Pope, son of the worthy colonel, drove his Pope-Hartford over a steep bank on the third day out while taking a curve on his high speed, smashing lamps and generally bending things up; the big Mercedes of President Whipple broke its time shaft between Rochester and Buffalo and had to be towed in by the Haynes-Apperson and later by the big special Peerless owned by R. B. Scott, of Baltimore. The Cadillac, driven by W. C. Hurlburt, of Detroit, had some trouble with its steering gear and went over an embankment,

bending things up badly, but not putting it out of commission. The big Peerless had "troubles of its own," and almost every car in the run, foreign cars excepted, have at some stage of the game possessed badly sprung front axles, which are quietly straightened out at night in most cases. Trouble with ignition, spark plugs, coils, tires, and springs has bothered almost every one of the tourists, while two of the newspaper men accompanying the run, F. Ed. Spooner, of New York, and Percy F. Megargel, of Rochester, have had their typewriters damaged by the rough roads over which all had traveled before reaching the good State roads in Monroe County, New York, which were followed by other equally good highways in Pennsylvania and Ohio.

A feature of the run that has never been brought prominently to public attention before is the killing of domestic fowl along the roads traveled. In the story of the tour



MAKING WAY FOR A TEAM IN THE MOHAWK VALLEY IN NEW YORK.

that to try conclusions with the fast cars would be only to demonstrate how slow their machines really are; while others do it in order that when they make repairs no others in the party will pass them and see their cars broken down.

There are more White steamers in the run than cars of any other make, the White always having demonstrated that it was an excellent touring car. Augustus Post, chairman of the committee having the run in charge, drives a White. Webb Jay, one of the most conspicuous figures in automobile circles, always having a hand in the touring, hill-climbing or racing game, is driving the same White that has carried him to victory on hill and track in the past. Jay is also in command of the "White Squadron," as the five steam cars, which keep together, are commonly called, and it is needless to say that it brings the tears to his eyes to see gasoline cars, that he knows he can beat in a race, go sailing past his lit-

of the *Pathfinder* over this route some weeks ago, the writer incidentally mentioned the fact that we occasionally struck a dog, maiming or killing him, but said nothing about barnyard fowls. On this run, from the first day out of New York, chickens have been "getting the worst of it." When encountered in the roadway hens, ducks, geese and turkeys invariably run along the road directly in front of the automobile. If the car is traveling at twenty-five miles an hour or more there is no fowl that can outrun it and unless they dodge off the road very soon they are overtaken and run down. Some go under the wheels and are killed. Others go through the entire machinery and come out dead and plucked of their feathers.

On Monday, August 1, the writer started from the Iroquois after the "bunch" had departed and driving leisurely along the lake road, had an opportunity of seeing what a terrible execution had been wrought by the machines ahead. Dead chickens, dogs, turkeys, ducks, geese and one fine peacock, lay bleeding beside the road, some of them not quite dead. At every farmhouse between Buffalo and Erie there was probably mourning and cries for revenge, but whose fault is it? There is no law protecting live stock or fowl left to run at large in the highway, and with a hundred miles to go in a few hours, few drivers cared to slacken down for fowls in the road. For dogs the writer has no sympathy—big vicious brutes that run out and snap at the front tires while the wheels are revolving at a three-minute clip. They "go down and out" very quickly on the day the big tour passes if they attempt these tactics.

Charles J. Glidden had a little adventure on Monday of this week. He preferred to start at a reasonable hour and take his time, and it was while bringing up the rear of the procession that he was "held up"—not by masked robbers armed to the teeth and wearing black masks, but by an even more dangerous adversary, an enraged Erie County farmer, whose prize Plymouth Rock lay struggling in the roadway with both legs broken, the result of being run over by one of the twenty odd machines that had preceded Mr. Glidden.

"I want one dollar from you to pay for that chicken which some one in your party killed. I don't care who killed it, you belong to the gang and you have got to pay for it." As this remark was emphasized by a double barrel shotgun, which looked to the occupants of the big Napier as though it was loaded to the muzzle, Mr. Glidden cheerfully (?) complied with the demand and passed over the dollar. The rustic grasped it in his palm and after lowering the threatening weapon said: "Well, I will let you go at that time, but if you or any of your friends ever kill another of my chickens there will be some other blood shed, and don't you forget it."

In the hotel dining room that night 100 cents were collected among the tourists and handed to Mr. Glidden, preceded by a very

formal address by Mr. Post. Investigation at the garage in the evening resulted in finding feathers on a number of cars.

There are large crowds of spectators awaiting the arrival of the tourists at every hotel, and all along the line of march the enthusiasm is intense. Flags are displayed on buildings and small children wave flags as the machines pass by their homes. The big sisters of these small children stand near and attach bouquets to such cars as stop. Many of the cars must make frequent stops, as they come into the night control well laden with flowers, apples, peaches and other tokens of a pleasant day in the country.

Automobile enthusiasm in and around Syracuse seems to be intense, but the roads are among the worst it has been my experience to travel over during the entire season's touring of some 4,000 odd miles.

There was not much "doing" in the way of entertainment at Rochester, although the members of the reception committee were awaiting the arrival of the tourists at the Powers hotel, where a hearty hand shake awaited all. It was probably better that no elaborate plans for the evening had been made, as all were worn out with their hard day's run, it having rained the night before, putting the highway in "fierce" condition. A number of the tourists formed a small party of sightseers and ran over to "Rattlesnake Pete's" for the evening, where they were entertained with snake stories and were given an exhibition of Pete's fearless handling of the dreaded rattler that caused these men, who fear nothing while traveling behind the steering wheels at a forty-mile clip, to draw back until yards separated them from the den of live and squirming snakes. Webb Jay hasn't got the sound of that rattling out of his ears yet, he says.

The run from Rochester to Buffalo, seventy miles, was over as fine a stretch of good roads as one might wish and everyone "hit it up" to a speed limited only by the capacities of the car. Some of the tourists who had been over this bit of roadway before did not start until afternoon.

At every night's control there is one official garage at which most of the machines are stored, and there is presented an opportunity of seeing an automobile exhibit without charge. Every one in the city who is interested in automobiles manages to get around to the garage during the evening. The cars that attract most attention are: First, Charles J. Glidden's English Napier, with its enormous wheels fitted with very large tires of a peculiar construction to prevent slipping and also having an arrangement to pull out nails or tacks that are picked up by the outer casing. Charles Thomas, Mr. Glidden's engineer, is not averse to showing the merits of this machine and the crowd that continually hovers around it shows plainly what an object of interest it is. After Mr. Glidden's car comes the big special Peerless of R. B. and C. S. Scott, of Baltimore. This machine, with

an estimated horsepower of eighty, is without doubt the largest touring car ever constructed in America. It is of the four-cylinder type and looks like a combination of the Peerless and Mercedes. Of the smaller machines, the little Elmore, covered with the mud and incidentally the glory of having traveled in ten States thus far this year, receives most attention. The original signs reading "New York to St. Louis" are still in place on the hampers and above them are tacked two new signs reading "Second Trip." This machine, while the smallest in the lot, having twenty-eight-inch wheels and three-inch tires, is certainly entitled to rank in the veteran class. Still another machine that has made a name for itself is the White, driven by Webb Jay, the same one he drove in the New York-Pittsburg Endurance Run last fall and from New York to St. Louis last June.

Chairman Post, of the Tour Committee, is still the hard working enthusiastic tourist that he is credited with being and personally looks after the wants and comforts of the entire party. Mr. Whipple, another familiar figure to automobilists, and his big Mercedes, have a certain friendly appearance that makes acquaintances all along the way. The tonneau door of his automobile is closed tight and an iron frame bolted on the rear supports a pair of extra tires, a huge coil of rope and a spade. The spade causes the same chilly feeling to pass over the new tourist as was caused at the outset by seeing tackle and blocks dangling from the front deck of the *Pathfinder*. "Will we have to dig ourselves out of the mud with a spade and use blocks and tackle when we strike that Illinois road?" is the question that is asked as these recall unpleasant memories of the pictures showing what Illinois and Missouri mud is like.

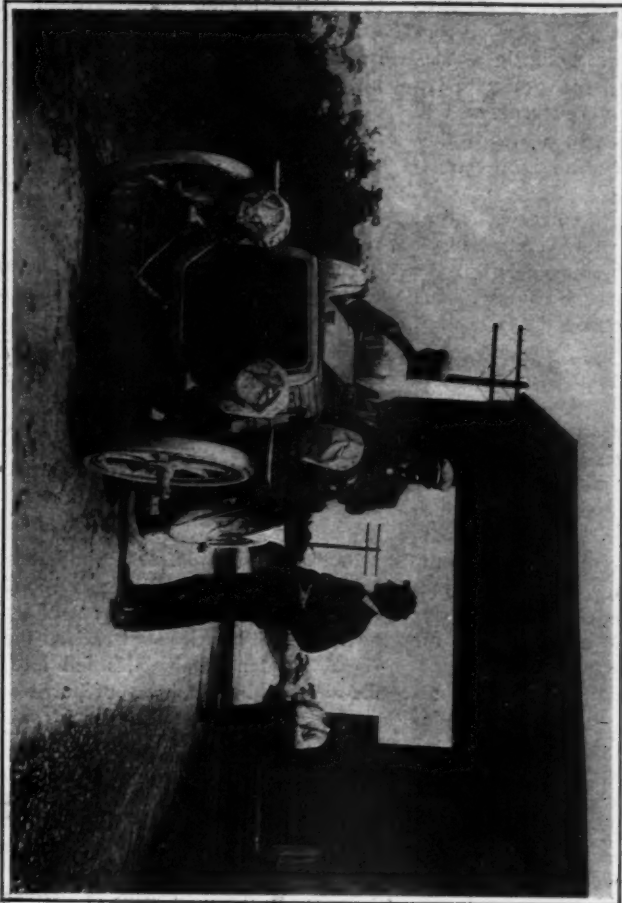
Following a trail of *confetti* is an easy task if the torn paper is properly laid. Sometimes it is and again it is not. On most occasions those in the pilot cars strew so much paper along the roadway for the first ten or twenty miles that by the time seventy-five or one hundred miles has been covered there is no *confetti* left and the tourists have to decide for themselves which roads to take. This is comparatively easy when a dozen or more machines have already gone over the route, but some one has to be the first one over the road, and for him to pick his way when the trail is scant is a very difficult matter. Sometimes, even though the *confetti* is well laid, it becomes confusing before the day has passed. In the run between Erie and Cleveland the trail was beautifully marked by the pilot car, but it did not remain so, for one of the big Panhards rushing over the course just at day break caused such a whirlwind that the *confetti* was thrown in every direction by the wind. To make matters worse, in Painesville a liberal quantity of tour paper had been strewn along Main street to mark a certain turn to the right. This was laid before daybreak and when the street



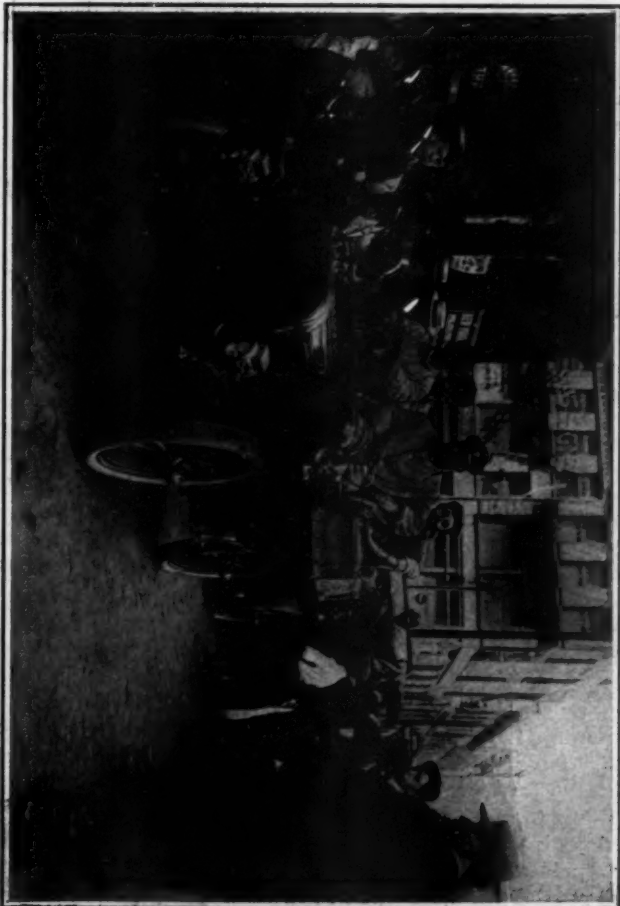
Geo. H. Lowe of Boston in White Steamer at the City Line in Buffalo.



Mr. and Mrs. Gillette Bringing Mrs. Whipple Into Buffalo after Breakdown.



J. M. Waters of New York in 24-Horsepower Panhard paying Toll
SNAP SHOTS, MADE IN TOWN AND COUNTRY IN NEW YORK STATE, OF SOME OF THE TOURISTS IN



Frederick Leach of Boston in Pope Toledo After Arrival in Buffalo,
THE AMERICAN AUTOMOBILE ASSOCIATION'S RUN TO ST. LOUIS.

sweeper passed an hour or two later swept the scattered particles all the way down the street for five blocks beyond the turn.

Looked upon from the viewpoint of the chief promoters of the run so far it has been very successful. Augustus Post, in an interview Sunday, said: "The objects in the mind of the promoters were three-fold: to demonstrate the practicability of taking long tours in automobiles; to prove the pleasures of such trips, and to increase interest in good roads. I have had a better time during the last week, I think, than in almost any similar period of time I can remember. We have traveled in a leisurely manner through the state of New York and while we have encountered some rather bad roads, we are showing ourselves and every one else who is interested that the motor car is a practical vehicle for those who wish to travel, even on American roads. We are showing this to the sportsmen rather than to the trade, and I feel confident that interest in motoring on the road will be increased by this tour of ours."

There are six women with the run, all of whom seem to take as great an interest in the day's trip as do the men. Despite the fact that there have been a number of hard showers while on the road and also that dust has been more than plentiful in certain sections, these women always manage to look as though they had just stepped out of a Pullman, instead of a dusty, hard driven automobile. The women are: Mrs. Glidden, Mrs. H. W. Whipple, Mrs. C. H. Gillette, Mrs. Lesh, Miss Camp and Mrs. F. W. Richards.

While the tourists and their escorts were at dinner in the International Hotel at Niagara Falls one old lady in the crowd of sightseers gathered around the line of automobiles at the curb was heard to say: "Why, there seem to be more of those St. Louis cars than any other make. They must be all made by the A. A. A. Company, I guess, from the way those signs read."

Almost every machine carries one or more cameras and snap shots are taken upon every provocation. When provocations do not turn up often enough, there is posing for an effective picture; and it was reported that one machine was almost put out of the run by being sent over an embankment to secure a good position for a dramatic picture. Owing to the large crowds that assemble at every stopping place it is almost impossible to take a good picture of the machines as they enter or leave the controls.

Registering on the official control list is not allowed until 7.30 p.m., nor later than 10.30 p.m. All cars coming in after 10.30 o'clock will have issued to them second class certificates. Cars making every control before 10.30 will receive first-class certificates regardless of the length of time consumed in getting from one town to another. To receive a first-class certificate a car does not positively have to come in under its own power, but it must be in. If broken down it can be towed in by another machine or even a horse.

Just how many additions will be made to the number of cars that left Buffalo before the cavalcade reaches St. Louis is problematic, but it is a pretty fair estimate to say that 100 cars, carrying 300 passengers, will arrive in St. Louis August 10, providing that rain does not render traveling through Illinois impossible.

The banquet served in the banquet hall of the Hollenden hotel by the White Sewing Machine Company was enjoyed by all the tourists, as were the speeches afterward. About 150 guests sat around the tables, but President Whipple, of the A. A. A., was conspicuous by his absence during the meal. He and Mrs. Whipple drove up to the hotel at 8.55 p.m., after spending about twelve hours on the road between Erie and Cleveland. First, it was engine trouble and then tire trouble, until for a time it looked as though the big 40-horsepower Mercedes would miss a control to-night. Finally the difficulties were overcome, and the big machine rolled up to the hotel just as the banquet crowd settled back in their chair for cigars and "jump spark."

Among the exceptionally good runs today was that of the Panhard of James Waters, who made the 118 miles in 3 hours 48 minutes, and the Elmore, which covered the distance in an even four hours. The tourists were joined at Cleveland by Mr. and Mrs. W. C. Temple, of Pittsburg, in a Pierce Great Arrow; Mr. and Mrs. E. H. Wallace, of Freeport, Pa., in a seven-horsepower Rambler; Mr. and Mrs. George S. Waite, of Cleveland, in a White steamer; Dr. Gifford and three passengers in a White; Mr. and Mrs. Fred Gates, and two passengers in a White; Mr. and Mrs. "Jack" Blakeslee and two passengers in a Winton; H. B. Dyer and three passengers in a Winton; T. C. Collins and three passengers in a Peerless and R. H. Johnson and driver in a Peerless.

PERCY F. MEGARGEL.

THREE PENNSYLVANIA STARTERS.

Special Correspondence.

PHILADELPHIA, Aug. 1.—Promptly on the stroke of 6 o'clock last Wednesday morning Walter B. Saunders left his pretty Overbrook home en route for St. Louis. Having been advised that a light outfit was desirable, owing to the stiff grades to be encountered, he decided to leave his tonneau at home, and, accompanied only by his chauffeur, he predicted a safe trip for his 20-horsepower Winton.

While Mr. Saunders is the only local starter in the run, there were two other starters from points near the city. They were E. T. Allison, of Wallingford, who decided to take the trip only twenty-four hours before the official hour for starting, and A. T. Keeley, of Ryersford. Mr. Allison was accompanied by C. L. Allison and John B. Hamel, while Mr. Keeley's party included his two brothers. The Allison car is a four-cylinder 24-horsepower machine; and Mr. Keeley's a 7-horsepower Rambler.

All three machines are scheduled to take

the National Pike route. At this writing Mr. Saunders is in the lead, the Allison's having trouble on the road and being compelled to return to Cumberland, where the car was put to rights in a machine shop, resulting in the loss of an entire day.

Assistant Secretary Gundlinger, of the Automobile Club of Philadelphia, tried to induce the Allison and Keeley parties to come to Philadelphia and start with Saunders from the A. C. of P. headquarters, promising them an escort of a dozen or more cars as far as Morristown; but after the escort was secured the participants decided to each start "on his own hook."

TEN CARS LEAVE BALTIMORE.

Start Over Southern Route with New Orleans and Norfolk Entries.

Special Correspondence.

BALTIMORE, July 29.—Promptly at 9 o'clock this morning the Baltimore division of the A. A. A. tour lined up in front of its headquarters at The Altamont and on the given signal the ten automobiles fell into single file and amid the tooting of horns and the cheers of the spectators struck the trail which leads to the Exposition City. They were escorted as far as Ellicott City, twenty miles out, by members of the Automobile Club of Maryland, headed by Secretary C. Warner Stork. Two women accompanied the starters in the tour.

Owing to the light rains of yesterday the roads outside the city were found to be free from dust and in very fair condition, but it is impossible to say how they will be up State, where the rainfall was considerably heavier.

All of the tourists do not expect to reach St. Louis. One or two will probably drop out at Cumberland or Wheeling, but they declared in chorus as they left the escort that they would keep on so long as they found passable roads and fair weather.

Those who left this morning were: Hart Newman and Sam Stone, of New Orleans; Secretary Stork, of the Automobile Club of Maryland; Messrs. Gill and Dickey, of the Baltimore committee; W. H. Rife, parents, and Mrs. Rife, D. A. Clark, M. W. Higgins, J. J. Mason, R. G. Atkinson, Robert French, Howard French, F. H. Hack, Jr.; Waldo Hack, O. Gooden, C. W. Hooper, and Palmer Abbott, Roy Collins and Frank Ziegler, of Norfolk, Va.

The tourists will follow the route laid out for the Baltimore division—through Hagerstown, Cumberland, Wheeling, Zanesville to Columbia, where they will meet the Central division August 5.

NO. MILWAUKEE ENTRIES.

Special Correspondence.

MILWAUKEE, Aug. 1.—Although twenty and perhaps fifty automobiles from Milwaukee and the Northwest were expected to join the tour to St. Louis at Chicago, no entries from this section have been made, and it is doubtful if any automobilists will participate, as the entry date has passed.

ROYAL TIME IN SYRACUSE.

Tourists Entertained at Banquet and Opera
by Local Club and Manufacturer.*Special Correspondence.*

SYRACUSE, Aug. 1.—Their ardor undampened by the miserable roads over which they passed in the run from Albany through the Mohawk Valley, the World's Fair tourists arrived in Syracuse last Thursday. They were ready, however, to stop for a night's rest and merry making.

As the visitors came up to the Yates hotel with a dash, their cars coated with mud, they were met by officials and members of the Automobile Club of Syracuse, under whose auspices all arrangements for the pause here were made. Every member of the club was on hand during the afternoon and evening, and President Willet L. Brown and Secretary-Treasurer Frederick E. Elliott as well as Carl L. Amos, H. W. Smith, T. A. Young and H. W. Chapin, of the entertainment committee, were especially active.

Pinned upon the coat of every local man was the insignia of the Automobile club upon the fluttering ribbons of which was imprinted in letters of gold "Welcome to the St. Louis Tourists, July 28-29, 1904." And with these the tourists were also decorated as they arrived.

In accordance with custom, on such occasions, the first car to arrive in Syracuse, the home of the H. H. Franklin Manufacturing Company, was that company's only car in the tour, which reached the A. A. A. local headquarters at 9.45 a.m. It was followed at 10.20 by a Pope-Toledo touring car, carrying Albert L. Pope and Arthur W. Pope. Albert J. Seaton and son, in a Buckmobile, carrying the message of greeting from the Mayor of Utica to Mayor Wells, of St. Louis, were third, and five minutes later came a Pope-Hartford containing Harold S. Pope and Walter Ziegler.

Four White touring cars arrived in a bunch at 11.10 a.m., having traveled together all the way from Albany, as is the White custom. Augustus Post, who was at the wheel of the first, stated that it was a good thing they had done so as they had to help each other out of mud holes and ruts in the roads more than once. "Worst roads I ever saw down there in the Mohawk Valley," said he, and his words were echoed by every one of the visitors. When it came to discussing the roads between Albany and Utica, they could not find words strong enough to express themselves. Along the Hudson and from Utica here, they allowed it to be understood, the highways were fair.

Among the late arrivals were Mr. and Mrs. Harlan W. Whipple and Committeeman Hurlbut W. Smith, of this city, who is in charge of the arrangements for the tour across the State from Albany to Buffalo. Mr. Smith was the guest of Mr. Whipple in his car from Albany here.

At 6 o'clock all of the tourists had arrived and a few minutes afterwards the visitors and local club members, to the number of 150, found their way to the big dining room of the hotel where a banquet had been provided through the Franklin company. All of the men filed into the big room, while in a small dining room so near that they could hear the ringing speeches that were made, the women tourists and a dozen or more prominent Syracuse society women enjoyed the dinner. Even the menu cards were made to show the spirit of the automobile, as a glance at one will show:

MENU

Gasoline Cocktail
Four Cylinder Clams on half shell
Olives Celery Radishes Salted Almonds
Air Cooled Green Turtle
Kenebeck Salmon a la Gerry
Cucumber Tonneau Baskets New Potato
Rissole
Sauterne Shaft Drive
Larded Filet of Beef a la Franklin
Green Peas
Roller Bearing Burgundy
Croquets of Sweet Breads, Automatic
Sauce
Float Feed Sorbet
Broiled Chicken Differential Style
Mum's Jump Spark
Tomato Stuffed Cylinder Oil Mayonnaise
Automobile Ice Cream
Assorted Fancy Cakes
Spark Plug Cigarettes
Roquefort Cheese, Rich Mixture
Short Circuit Bent's Crackers Wafers
Open Exhaust Cigars
Fruit Cafe Noir
Music by Spooner's Band
Butter and Cheese from Whipple's Farm

Seated at the head table were: Willet L. Brown, president of the Automobile Club of Syracuse, H. H. Franklin, Mayor Alan C. Fobes, Augustus Post, George S. Larabee, Commissioner of Public Safety Ralph S. Bowen, Harlan W. Whipple, C. H. Gillette, Hurlbut W. Smith, Charles J. Glid-

den, John Wilkinson, Frederick H. Elliott, Carl L. Amos, Albert A. Pope, Jr., Arthur Pope, Harold Pope, A. B. Tucker, C. A. Benjamin, M. L. Downs, F. Edward Spooner, J. H. Gerrie, Emerson Brooks and J. M. Waters.

When the attack upon the viands had become less strenuous and glasses had been refilled, President Brown proposed a few speeches and first called upon Mayor Fobes. In his happiest vein, the Salt City's young chief executive told the visitors that the city was theirs. Although not an automobilist himself, the Mayor explained, there was a good chance for him to become one, if "Ben" (C. Arthur Benjamin) would only visit the City Hall on a customer-hunting expedition.

Giles H. Stillwell, a Syracuse attorney, painted a brilliant future for the automobile, and in even more brilliant colors did Augustus Post speak of the motor car and its mission in war as well as in peace. Albert L. Pope said that he hoped the Toledo Club, of which he was a member, would be able to duplicate the treatment which the tourists had received in Syracuse. They could not better it, he said, as he proceeded to call for a toast to the Automobile Club of Syracuse and the Franklin Company, which was responded to with a will.

At the close of the dinner, the entire party boarded the special trolley cars in waiting and was transported to Onondaga Valley, three miles distant, where it listened to "Fra Diavolo." It was a happy and appreciative audience. The opera put the company in good humor at once, as the singers did their best to please. At times the audience assisted the vocalists on the stage. It was long after midnight ere the party had returned from the Valley and the tourists had found their way to bed to rest up for the continuance of the trip.

A Peerless touring car, with Harry C. Pierce at the wheel and W. L. Brown and H. W. Smith aboard, left here in the early hours Friday morning to show the way by a trail of confetti to Rochester. The first of the tourists left the city about 6 a.m., the



A STRETCH OF GOOD ROAD WEST OF ROCHESTER, NEW YORK.

others following at intervals until the last car disappeared from the Salt City about 8 o'clock.

The tourists' stay in Syracuse was far too short in the opinion of the club members, but will be long remembered as an event in local history.

VISIT THE FALLS.

Tourists Make Fast Run from Rochester to Buffalo and Spend Sunday Sightseeing.

Special Correspondence.

BUFFALO, Aug. 1.—Buffalo was the host of the tourists for practically two days. Some of the tourists arrived early Saturday morning and others continued coming in throughout the day. The arrival at Buffalo concluded the sixth day of the run, twenty-three cars having left Rochester on Saturday morning. Including the cars which went from here to Batavia to pilot the tourists, the party consisted of about thirty automobiles, each carrying several passengers.

Percy P. Pierce was the first of the tourists to reach Buffalo, arriving at 7:25 a.m. in the Arrow car. He had made the 73-mile run from Rochester to Buffalo in 2 hours 25 minutes. Others came in at varying intervals, making the Hotel Iroquois their destination.

The day was notable for the small number of mishaps, the road being in its best condition. The only accident of account befell Harlan W. Whipple's Mercedes car, the axle of which broke at Crittenden, a small town a short distance from Buffalo. C. V. Birchwood, of New York, with his Haynes-Apperson car, volunteered to tow the crippled machine into Buffalo, but after covering about six miles they were overtaken by the Messrs. Scott in Mr. Whipple's special Peerless, which relieved the Haynes-Apperson of its load. C. H. Gillette broke a rear spring on his Pope-Hartford at Corfu and had to stop at a blacksmith shop for temporary repairs.

Jesse B. Eccleston, chairman of the entertainment committee of the Automobile Club of Buffalo, with a party, and Dai H. Lewis, with another party, went from Buffalo to Batavia to meet the tourists and pilot them through Chittenden and into the Bison city, scattering *confetti* to mark the route. When the run from Rochester to Buffalo was concluded some of the motorists, who at Utica were so dissatisfied with the condition of the highways that they sent a protest to Governor Odell, had revised their opinions of New York State roads and all freely admitted that Saturday's traveling was the best part of the trip so far.

Saturday night the Automobile Club of Buffalo gave a reception to the tourists, at which a number of informal addresses were made and incidents of the trip recounted. Most of the tourists, escorted by members of the Buffalo Automobile Club, made a trip to Niagara Falls on Sunday, and returned in the evening.

Augustus Post, chairman of the touring committee of the American Automobile Association, when in Buffalo said:

"I think I had a better time during the last week than in any similar period before. We traveled leisurely, and while we came across some bad spots, we are showing ourselves and others interested that the automobile is a practical vehicle for travel, even on the roads of this country. We are showing that to the sportsmen rather than to the trade, and I feel confident that this trip will do much to increase interest in motoring. The trip will show that the roads and machines of America have been improved within the last three years."

President Whipple, of the A. A. A., speaking about the attitude of the rural communities toward the automobile, said that much of the antipathy that formerly existed had been removed.

Charles J. Glidden, of Boston, had a conference with President William H. Hotchkiss, of the Buffalo Automobile Club, Mr. Whipple, Mr. Post and others in reference to the reliability test cup, which he is to offer in competition next year. It is announced that the trophy will cost \$2,000 and that its height will be three feet. The competition is to be in the hands of the touring committee of the American Automobile Association. It is suggested by Mr. Glidden that the distance be not less than 1,000 miles, to be covered in ten days, each car to be driven by its owner, accompanied by a woman, if he has a family, and by an engineer and one observer. A condition to be imposed is the carrying of 200 pounds of baggage. Those are the tentative propositions; they have not been definitely decided upon and will not be until the party gets to St. Louis.

There were many incidents more or less amusing on the trip from Rochester to Buffalo. The Pierce Arrow came near running into a herd of cows that refused to budge, but Mr. Pierce got his machine past the animals without injury to them or to the car. A chicken got caught in the machinery of one of the cars and came out at the other end dressed as if for the poultry store. Several of the cars killed a number of chickens on the road.

Robert P. Scott, of Baltimore, was served with a summons by Deputy Sheriff William Kaiser at the Iroquois Hotel on Saturday night on a complaint issued by a Rochester man whose horse was frightened by Mr. Scott's automobile. The animal ran away and had to be killed.

Before Buffalo was awake this morning some of the automobilists had started again on their journey to the World's Fair. The first starter was M. J. Waters, of New York, in his 24-horsepower Panhard. He left the hotel at 3:25 a.m. Five minutes later he was followed by C. V. Birchwood, in his White.

Mayor Knight, of Buffalo, sent on with the tourists a letter to Mayor Wells, of St. Louis, in which he wished the big Fair the best of success and expressed the hope that

the motorists would arrive safely in St. Louis.

At Buffalo the party was joined by James L. Breeze, of New York, in a 40-horsepower car, and Harold Hoag, of Lockport, N. Y., in a 6-horsepower machine, which was the smallest of the cars that left this city.

ST. LOUIS RECEPTION.

Tourists to Be Escorted into City and Through World's Fair Grounds.

Special Correspondence.

ST. LOUIS, Aug. 1.—The president of the St. Louis Automobile Club, A. B. Lambert, has completed arrangements for the reception of visiting motorists August 10.

Near the end of the tour route all machines will be cleaned and decorated, for it is proposed to enter St. Louis in holiday attire. The tourists will be met in East St. Louis by a committee of the club, who will greet them and escort them across Eads's bridge to their hotels. The president is kept informed by telegraph of the movements of the motorists. On the morning of August 11 the visitors, accompanied by 160 local motorists, will form a parade at Twelfth street, headed by Mayor Wells and Chief of Police Kiely, and will proceed by way of Chestnut street, Lawton avenue and Lindell boulevard to the Fair Grounds.

After a ten-mile tour of the Fair Grounds they will proceed to the Plaza of St. Louis, where President Francis, of the Louisiana Purchase Exposition, will formally receive them. The tourists will then present to Mayor Wells of St. Louis letters from the mayors of all the cities through which they have passed. Luncheon will be served in the Tyrolean Alps.

The following afternoon, August 12, the tourists will be entertained at a smoker in the Lumbermen's House of the Hoo Hoo. The St. Louis Automobile Club will give a lawn party at the club house in Clayton road as the principal function in honor of the guests.

Automobile speed contests will be held at the St. Louis Fair on Sunday, August 21, on the mile track in the grounds. The track has been specially prepared for the occasion by banking, and a survey has also been made to obviate any doubts that might exist regarding the accuracy of the distance. The meet has been sanctioned by the racing board of the American Automobile Association. Handsome prizes will be offered for the contestants in the eight events that have been scheduled, and a number of entries have already been received. The accommodations for spectators are enormous, the management stating that 100,000 persons could be taken care of without difficulty.

The New York agency of the French automobile firm of Panhard & Levassor has entered two machines for the Vanderbilt Cup race on October 8. The details of the automobiles entered have not yet been forwarded to the committee.

On the Trail of Confetti.

St. Louis Tourist's Notes in Old York State—Corkscrew Turns and Thank-you-ma'ams Keep the Drivers Guessing.

Special Correspondence.

ALBANY, July 26.—The tourists were joined in Springfield by F. M. Manross, of Forestville, with a Columbia, who got away from Springfield about 7.10 a. m. Messrs. Glidden and Lesh also left before car 51 started, at 7.45 a. m. Just out of Springfield we overtook Mr. Glidden, whose Napier we wanted to test, as we believed it to be no faster than our car on the level and rather slower on the hills. What followed was not exactly a race, because we made no attempt to pass him, and both cars slowed down at the proper times; but it was still a merry chase, in which both cars were driven "all out" on the hills, at least, and possibly elsewhere at times. So far as such a trial could prove anything, it confirmed our impression.

The country, rolling in surface and with alternative cornfields, woods and pasture for the first dozen miles, became more hilly and wooded as we approached Fairfield. Our course was constantly upward, for we were entering the Berkshire Hills. Presently we were in a beautiful valley, with a narrow river on our right and abrupt wooded hills on both sides. For nearly twenty miles we followed that valley, up, up, always upward, and saw it close in on us to the proportions of a defilé, and the river diminish to a babbling brook, tumbling over stones and often wholly hidden by trees. Through Fairfield, Russell, and Huntington the roads were narrow macadam, varied by dirt roads admirably kept, crowned, ditched, and rolled smooth and firm. "Don't Drive in the Middle of the Road" was a common notice along the way.

We met few timid horses, but several nervous drivers, for all of whom we slowed down, stopped (car and motor), or got out and led the horse, as the case seemed to require. Where we could properly do so, we made the best speed we could. We were still following Mr. Glidden, but with no attempt to race.

The early morning fog had now partly lifted, but instead of the sky clearing, it presently began to sprinkle, and Mr. Glidden's party stopped to unfurl storm robes, while we pushed on with rubber capes and boots already in place.

Beyond Chester, a microscopic hamlet wedged in between high hills, the roads, now all of dirt, grew rougher and the steady uphill grind more arduous. We passed Mr. Manross's car, and immediately after overtook but did not pass Mr. Lesh. We lost sight of him presently, the road being so winding that a view for any distance was impossible. Soon after, on a short and apparently not difficult rise, our wheels sank inches deep in soft rotten saw-

dust, and we were ignominiously stalled. I had heard of the sawdust plan of repairing roads, and of its terrors for the automobilist, but I saw it face to face now for the first time. We backed down hill a little, and, finding the water a-boil in the tank, refilled the latter from a rivulet just at hand. Then, with Ulrich pushing, we attacked the hill again, and climbed triumphantly.

That was the beginning of the Chester Hill of local renown. It is an ascent perhaps three-fourths of a mile long, rising in wave after wave, with maximum slopes of fully 20 per cent. grade. It is certainly worse than Nelson Hill, that now dethroned ogre of the motorist on the New York-Albany route; but our car took it without a falter, with baggage and passengers all aboard. At the top we found Mr. Lesh refilling his water tank. His car, he said, had gone up also with all hands aboard.

The descent of Chester Hill—which ought to be called Becket Hill, as Becket Centre Postoffice is on its crest—is as long, steep and rough as the ascent. Like all such hills, it was punctuated with frequent and very sharp thank-you-ma'ams, which gave the tonneau passengers enough to do to preserve order among the luggage.

Lee and Lenox, as seen from a flying automobile, justify their fame as summer residence places. The latter in particular seems almost wholly made up of beautiful estates, most of them commanding fine views of the surrounding hills. The roads are like billiard tables, and it was not hard to believe that automobile owners in those towns sometimes found their temptations too great.

We reached Pittsfield in company with Mr. Lesh at 11 o'clock, an hour before Mr. Glidden, the next arrival. He had got up the hill all right, he said, but had taken a wrong turn and gone astray in Lenoxdale. Just behind him came Mr. Manross, who admitted shedding three passengers. Up to 12.45 p. m., when we left Pittsfield, I noticed no others, though Mr. Whipple's mechanic tells me that he reached Pittsfield about noon, having started at 9 o'clock.

Going out of Pittsfield in company with Mr. Lesh, we took the wrong road almost at the start, and both cars had to be pushed up a short muddy slope on the side of a wooded hill. Mr. Lesh stopped to rest when the pushing was over, while we went on. We learned our error a quarter of an hour later from a passing horseman, when about half-way down the longest, most tortuous, most precipitous, and roughest hill I ever saw. A beautiful valley, down which one could look out to hill after hill, miles away,

was seen, rounded on three sides by a hill—Taconic Mountain—many hundred feet high. Our road began near the top of the mountain, at one end of the horseshoe, and curved around to the bottom of the valley at the other end. The State road which we should have taken is a fine highway. The road we did take was a narrow track, with the thin dirt covering over the rock foundation nearly washed away. We went down with motor stopped and hub brakes jammed on hard—went down at a snail's pace, for the turns were like corkscrews, the trees hid all but the nearest fifty feet of road, and the thank-you-ma'ams were the most diabolical possible to imagine. Luckily the morning's shower had not made what dirt was left very slippery, else I might not now be penning these lines. I should say that hill was fully three miles long from top to bottom. Before we reached the foot the grease in our right rear axle bearing was smoking from the communicated heat of the brake, and we had to stop and cool it with water.

We struck the right road again at Lebanon Springs. Naturally, our mistake in route had cost us some time, and now Mr. Pierce tried to make up some of it. I believe we got off the road somewhere else, for we missed certain expected landmarks; but we got safely to Nassau, where we began to meet the peculiar and irritating geological feature of that part of New York State, of occasional rock strata, displaced from the horizontal, jutting up at intervals and forming natural thank-you-ma'ams at all sorts of unexpected places. Pierce was driving on the principle of taking every bump at the best speed practicable for that particular bump, and it was inevitable that he should miscalculate sooner or later. He did so—a little—on one of these rock thank-you-ma'ams, with the result that the present writer—in the tonneau—got a jolt that he will remember, and one of the steering knuckles got a slight bend. We finished the drive to Albany at a more sober pace, and the bend has by this time been corrected. Curiously, we were the first of the Boston contingent to arrive, Mr. Glidden following about fifteen minutes later. Mr. Lesh had the good luck to learn his error in route, from the same horseman who enlightened us, before it was too late to retrace, and finding on reaching the State road that others had gone ahead, he took things philosophically and arrived in Albany about 4.30 p. m. Mr. Whipple had preceded him by half an hour.

Albany to Syracuse.

SYRACUSE, July 28.—When we left Albany, about 8.30 o'clock, Wednesday morning, nearly all the others had started. The shower of the day before had laid the dust, and for the first eight miles we whirled at top speed over superb macadam. Then we turned to the left into the Troy Turnpike, a broad, but far from smooth, highway made by piling dirt on a bed of crushed stone.

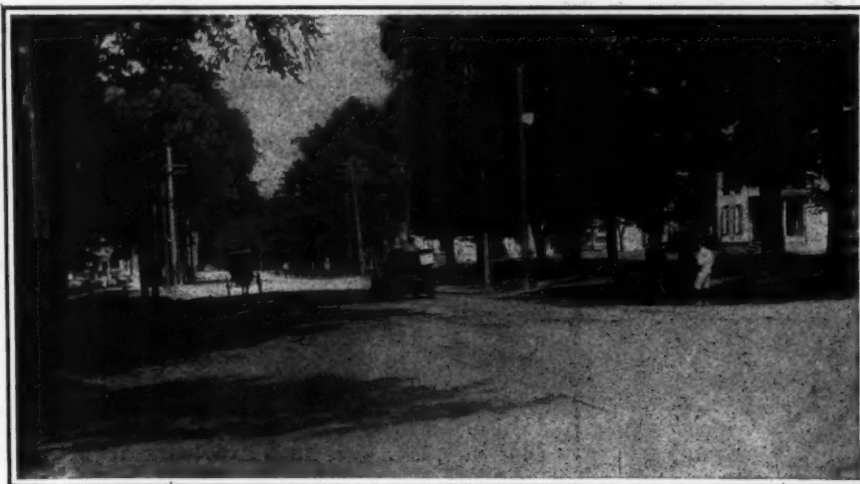
This dirt was in the condition of half-dried mud, rutted and full of chuck holes, which we dodged when we could and jolted through whenever we had to. Interurban trolley lines have been built within the past two years through a large part of the Mohawk Valley, paralleling the railroads and, like the latter, visible for long stretches from the wagon road. Between Troy and Schenectady the electric line runs by the side of the turnpike, and is equipped with block signals as in approved railroad practice.

We bumped at good speed into Schenectady over rough macadam, and left it following the river by a road which last spring was entirely under water near the turn. Muddy earth roads followed, through a rolling country with cultivated fields and orchards. We were on the northern side of the Mohawk Valley, which is two or three miles wide, level and green between the hills to north and south. Disagreeable though the roads were, they were not so bad as to distract attention from the beauty of the landscape, smiling under a cloud-flecked blue sky.

Mr. Whipple, who then as usual had started late, passed us by another road, as we went through Schenectady, and we followed him into Amsterdam, stopping once or twice for nervous horses, for which, as for timid drivers, Mr. Pierce has uniformly shown all consideration.

The road from Schenectady to Amsterdam is narrow and mainly dirt, in good condition as dirt roads go, but disagreeably rough for any speed over fifteen miles an hour. I was, therefore, considerably sur-

unsuccessfully to hail us. The car was certainly fast for its size, and the night before Mr. Hurlburt, the driver, had promised to "do us up brown." He didn't do it, of course, but we had to put on more speed than was comfortable to keep out of his way, and I was rather aghast at the way the little car was put through mudholes and over the bumps in the road. I did not envy



PASSING THROUGH THE LITTLE VILLAGE OF SOUTH BUTLER, WAYNE COUNTY, N. Y.

its passengers, though they did not seem to mind their punishment.

We were warned to go slowly through Amsterdam, but we went fast enough to pass Mr. Whipple's car; and when outside it became necessary once more to settle the respective merits of the cars. We were favored with good new macadam, and that the furious scurry which followed did not

This same circumstance, which seemed to have little relation to the character of the roads, struck me on the two following days as well, and it was not difficult to guess the reason. Nearly all the population of the counties containing the Mohawk Valley is found in or near the valley itself, which is served by two lines of steam railway and interurban electric lines, all in immediate

proximity. Consequently there is almost no teaming or carriage travel between the towns, and even the through highways are very little used. Under the State aid law the towns pay but 15 per cent. of the cost of improving the roads, and the counties 35 per cent.; but, as most of the taxable property of these counties is in the towns through which the through roads pass, the hope of persuading these towns to apply for State aid, and spend money rebuilding roads which they hardly use is very small indeed. Either we must admit that the roads between Fonda and Syracuse are not enough used to repay improvement, or means must be found to rebuild them at the State's expense.

Tribes Hill, well remembered since the endurance run three years ago, is now sprucely dressed in a crushed stone road surface, with macadam thank-you-ma'ams, all new and very neat. We had to descend it carefully, for the thank-you-ma'ams were very abrupt. Approaching Fonda we struck a bit of rough road, on which Mr. Whipple was able to get by us, as we did not care to do "stunts" with that steering knuckle.

We reached Fonda at 11 a. m. and decided to stop for lunch, though the tourists who had gone through before us had pushed on to Little Falls. Five other machines arrived not long after us, and the occupants followed our example.

Out of Fonda we found the roads first good, then fair. For some distance the road ran level and close to the railroad tracks, its material a black pebbly dirt, which when we traversed it was firm and smooth. We made good speed, and on one occasion took what might be called a flying leap off the end of a small bridge, beyond which the



CROSSING THE TOLL BRIDGE OVER THE HUDSON RIVER AT ALBANY, NEW YORK.

prised to see the Cadillac car, carrying three passengers, coming after us at a rate which bespoke either a beautiful confidence in the running gear or a grim resolve to defy Fate. Beside the driver was "Johnny" Wetmore, well known to all New York newspaper men, his coat off and shirt sleeves rolled up, his feet on the dash, and in his hand a megaphone, through which he tried

result in trouble for some one was due in large measure to the almost wholly deserted state of the roads. It is possible even when racing to slow down for other vehicles, signalling the following car to do the same; but it is a remarkable and significant fact that, outside of the towns and villages, the vehicles which we passed on that day could almost have been counted on the fingers.

road fell away sharply. In another village—Spraker's, I think—we rushed a short hill at twenty miles or more, only to jump high into the air from a thank-you-ma'am near the crest. A crowd of happy villagers saw us perform this feat with great delight. That and similar incidents kept the tonneau passenger both busy and tired.

Such leisure as the roads gave us for looking around disclosed a charming panorama of tilled fields and pasture, gentle hills, and frequently a distant prospect for miles up the valley. Before long, however, these idyllic scenes were forgotten. In St. Johnsville we encountered the first specimens of that diabolical product of the up-state road maker; the "gridiron" road. This curious kind of highway, the like of which I have seen nowhere else, is a road built mainly of stone, but built and used in such a way as to become scored lengthwise with numerous parallel ruts, out of which it is impossible to keep the wheels. I have seen roads, both now and three years ago, of the width of a boulevard, completely ruined by ruts five or six inches deep and a foot and a half apart, over their entire width.

Such a formation is practically impossible in real macadam; and yet most of these roads resemble wornout macadam closely enough to deceive the casual eye. A close examination, however, of the roads between Fonda and Utica, nearly all of which were more or less of this character, showed that the material was simply a mixture of dirt and smooth round pebbles, piled on the road and left to be packed by travel. The dirt, instead of acting as a binder, when wet plays the part of a lubricant between the pebbles. When a rut starts, therefore, it holds the water, which wets the dirt below; and the pebbles, which average the size of a hen's egg, have no grip on each other, and, therefore, slip and are pressed down under the wheels of vehicles, which also force out the mud from the ruts, making the latter deeper. The dirt washes out in successive rains, and the result of several years of remaking the roads with this material is a surface of dirt or mud on a loose foundation of round stones, ready to creep and sink and ravel on any provocation. The most abominable roads of the tour thus far—the most difficult, most treacherous, and most exasperating generally—were those extending for several miles each side of Little Falls and Herkimer. We were there skirting river and canal, and the scenery was bewitching, but if we took our eyes for ten seconds at a time from the road ahead we were severely punished for doing so. Where trees overhung the road the mud was inches deep, and a sideslip was added to our other troubles. Pierce is a most skillful driver, and I was never for an instant uneasy; but it is no fun watching the road for jolts for hours at a stretch.

In and beyond Little Falls we overtook Messrs. Glidden and Lest, who sensibly were not hurrying; and beyond Herkimer we were chased full tilt over an inconceivably bad road by the Cadillac. As I watched

the little car with its three "shuck up" passengers go bouncing about behind us, I wondered that it had a spring, axle or steering knuckle left. Pierce, who was not taking chances, allowed it to pull abreast of us, after which its occupants drew long breaths of relief and moderated their pace.

Our running time from Albany to Utica (100 miles) was about 5 1-2 hours, which must be called very good, considering the roads. Mr. Glidden, in the hotel that night, emphatically pronounced the latter the worst in all his 16,000 miles of travel. France, he said, has 416,000 miles of roads, every mile of them better than any that we have seen since we left Boston. The unanimous sentiment of the tourists found expression in a round-robin letter to Governor Odell, in which the general opinion of the New York State roads was forcibly expressed, and hope voiced that a way could be found to better them.

A smart shower Wednesday night brought trouble to Mr. Scott, whose big 70-horsepower Peerless was caught in it between Little Falls and Herkimer. Because the wheels were not roped, it got into the ditch and had to be hauled out by horses. It reached Utica in the small hours of the morning and started with the rest between 7 and 8 a. m.

A leaking radiator racked by the hard going of the day before, delayed our start on Thursday until after lunch. The roads were of mixed varieties, but on the whole better than those of the afternoon before; and there were some very good stretches of macadam.

A good many drivers and some horses were afraid of us, the automobile being apparently less familiar here; but no trouble resulted. Our route, being the direct road through Oneida and Canastota, no longer followed the Mohawk river. The country was rolling, with few trees in the earlier part of the day, and some stiff hills in the latter part. The only "gridiron" road encountered was in Chittenango, but that one was certainly disgraceful. Indeed, I have noticed that the village streets hereabouts are apt to be in worse condition than the country roads.

From Utica onward we have found the trail of *confetti* left by the pilot cars very useful, especially where there is a choice of roads. Going out of Chittenango, however, we managed to take the wrong fork, and went over a very stiff hill into a region where few automobiles appeared to have been seen. We got a fine view from the hill, and the roads were not excessively bad. With the aid of a few inquiries we found our way to Fayetteville, where we picked up the main road again. Save for a short shower or two, ending in a hard down-pour just as we reached the asphalt of Syracuse, the ride of fifty miles was quite uneventful.

Syracuse to Rochester.

ROCHESTER, July 29.—The air was cool and bracing when we left Syracuse this morning

in the face of a fresh northwest wind. It was beyond Syracuse that we had struck the worst specimens of gridiron road in the endurance run of September, 1901, and the general character of the roads was not greatly changed, although local deterioration and improvements were noted. The rain of the night before had left soft mud in some spots and drying mud in others, but in the bracing air the drawbacks of the roads were little thought of. Nevertheless, we did considerable skidding, and but for the omnipresent ruts should have done much more.

Camillus Hill, a steep descent followed by an equally steep ascent was slippery with mud on the macadam surface, but all save the first portion of the climb was taken on the second speed. In Elbridge the roads were badly gridironed and very muddy.

Beyond Syracuse the mixed pebbles and dirt of the previous day or two give place to a *quasi* macadam, which seems to be made up sometimes of large pebbles broken in a crusher and sometimes of crushed limestone. In either case the stone is far inferior to the crushed granite and other hard, sharp stones used further east: but the worst of it is that the macadam is finished off, when newly made, with a layer of dirt an inch or two in depth. The muddy rutted state into which all of the roads near Syracuse soon lapse seems to be largely due to this pernicious practice, of which we had a good example in a road, badly gridironed and in process of remaking, just out of Syracuse.

At Weedsport we left the main road, turning around three sides of a square and crossing the canal twice in quick succession. This gave us our start on a welcome detour north of the Montezuma Swamp. The detour led through Port Byron, Spring Lake, and South Butler, joining the main route before Savannah was reached. The road directions were somewhat vague, but the *confetti* trail was definite enough, and we had no trouble. Mr. Manross, who had preceded us, earned the thanks of some of the tourists by stopping his car at an abrupt and unlikely-looking left turn in the course, and guiding them to it.

The roads of this detour were at first very bad, being frightfully gridironed out of Weedsport, with sharp downward slopes on both sides; then they were better, and they ended by being positively respectable, narrow but macadamized and smooth of surface; better, in all likelihood, than nine-tenths of the main line roads. The country was decidedly attractive, for the road followed a small stream for some distance, and the soil, a black, fertile loam, was liberally cultivated. Further on we encountered some hills.

The farming population showed interest in the tourists, but for the most part made no demonstration. In South Butler, however, we were pelted with a rain of bouquets, which, propelled by the capable arms of many village lassies, struck us at the psychological moment before we struck sundry very high crosswalks, over which we

bounced at an uncommon rate before we could separate business and pleasure long enough to slow down the car.

We entered Clyde by the canal road, of detestable memory. It had lost none of its odious distinction, and we were glad to leave Lyons behind and ride over the better roads approaching Palmyra. Here we stopped for lunch, in company with Mr. Lesh's party, which had kept close to us much of the way.

Several tourists who had lunched at Lyons passed before we started again, and we caught sight of some of them soon after. One, Esselstyn, driving the Franklin, ran short of gasoline just before reaching Fairport, and we stopped to share our scanty supply with him, after which both cars replenished at Fairport.

From Fairport to Rochester the roads were perfect, and we made fast time. The general opinion is that the most arduous part of the tour, so far as roads are concerned, is over, and I fancy few of us regret the fact.

Rochester to Buffalo.

BUFFALO, July 30.—I relinquished my seat in the *Great Arrow* at Rochester, and rode to Buffalo by train. Percy Pierce started from Rochester about 5 o'clock, and reported at Buffalo that he had made the sixty-odd miles between the city lines in just two hours. As the roads are throughout in splendid shape, I had no difficulty in believing it, even with all proper slow-downs and stops for traffic counted in.

A round-up of the tourists at Buffalo shows twenty-three arrivals, and no withdrawals enforced by accidents—a record in memorable contrast to that of the endurance run three years before. There have been, of course, minor accidents, chargeable in nearly all cases to the shocking state of the roads. The Cadillac which chased us so madly two days before has demonstrated what, for that sort of usage, at least, was the weakest part, by breaking a steering knuckle between Utica and Syracuse. No injuries to the occupants had resulted, for the reckless Wetmore had gone home from Utica; and a new knuckle was put in and the car hurried on. Several cars reported broken springs, which, of course, were early replaced. Mr. Scott's big car is undergoing minor repairs at the Pierce factory. Mr. Whipple's car broke a shaft yesterday, but the damaged member will be replaced in time to start to-morrow.

At a smoker tendered to the tourists yesterday night by the Buffalo Automobile Club, I asked Judge W. H. Hotchkiss, who was largely instrumental in drafting the present New York State automobile law, what he thought of the prospects for new legislation of the sort next winter. He replied that he thought there would be no occasion for a change.

"The present law will stay on the statute books till there is no law," he said, "or until the reckless driver of an automobile is

treated exactly like the reckless driver of a horse. The time will come in the country, as it already has in the cities, when horses will pay no attention to these machines; and when that time comes all drivers can be treated alike. Meanwhile we have won the confidence of the country districts by being decent and giving them an effectual law—one that can be enforced. There is no sentiment in this part of the State demanding a stricter law."

To my remark, that all parts of the State were no so fortunate, and that a good deal of trouble was caused about New York city by the sporting owners of fast machines, Judge Hotchkiss replied with emphasis that the thing for decent motorists to do was to combine in enforcing the law against their reckless neighbors. "The jail penalty is going to be the only thing that will stop this scorching," he said, "and there is no reason why it cannot be enforced. I have sometimes thought that we could get at a good part of the trouble by forbidding any one to drive a machine who is not a citizen of the United States. That would shut out these French chauffeurs; but it would be class legislation, I suppose. We in Buffalo have no such problem to face. There are, of course, plenty of machines that will go forty miles an hour, but they are in the hands of gentlemen, mostly, who don't want to drive fast. We haven't a French chauffeur in the city, and I hope New York will never let them come here."

To-day a number of the tourists, escorted by members of the Buffalo Automobile Club, enjoyed a run to Niagara Falls.

The good condition of nearly all of the cars, and the freedom from the restrictions of an endurance run, have without question done much to convince the public that a tour of this sort can really be a pleasurable experience instead of a task, and in that way at least the "cause" has greatly benefited.

Buffalo to Erie.

ERIE, July 31.—For twenty-five miles west of Buffalo the tourist enjoys fine macadam roads, which for some miles lie close to the edge of Lake Erie. The rest of the trip into Fredonia is over dirt roads with no stone foundation. When dry they are in very good condition: to-day they were only fair. The country about Fredonia is a great grape-growing region, miles of farm land devoted to little else being passed. The proximity of the lake averts early frosts, and the soil, a gravelly loam, seems especially adapted to this crop. When it is considered that the beneficent influence of the lake breezes extends not more than five or six miles inland, it is hard to realize how extensive the grape-raising industry of this region is. Other fruits are raised also, and Fredonia, the nominal noon stop, is known as a town of beautiful trees. Only a few cars stopped there, most of the tourists making early starts and pushing directly through to Erie. To this rule Mr. Scott was an exception, as he pulled into Fredonia about 8

p.m., and an hour and a half later, at the Reed House in Erie, Mr. Whipple was joyously announcing his intention of repaying Mr. Scott's favor in towing him into Buffalo on Saturday by going out to meet him and towing him (Scott) into Erie. What the issue will be is not at this writing known.

HERBERT L. TOWLE.

PLACE HOPE IN MAYOR.

St. Louisans Believe His Purchase of a Car Will Remedy Local Evils.

Special Correspondence.

ST. LOUIS, Aug. 1.—Mayor Wells has bought a high-powered Peerless and local motorists think that this augurs much for the sport in St. Louis. It is hoped that the Mayor will take a hand to prevent unjust discriminations and unfair legislation. The streets of St. Louis are in a deplorable condition with the exception of Lindell, Delmar and West Pine boulevards. These streets are new and the contractors and the gas company have not had a chance to leave their usual marks. Many of the streets have recently been paved, but the gas companies are permitted to tear them up and not replace them properly. When a building is in course of erection gas and water connections have to be made from the street and a dozen thoroughfares show hundreds of places where the pavement has been torn up, leaving depressions which are getting worse. When Mayor Wells tries a few of these streets it is thought he will see the justice of the complaints by taxpayers, particularly by the members of the St. Louis Automobile Club.

This club is also trying to interest the Mayor in the matter of speed restriction. At present it is six miles an hour in the parks, and all the police have positive orders to arrest all automobilists going over that limit. Other vehicles are allowed to go eight miles an hour, yet wholesale arrests do not occur except in the case of the automobile. Members of the club are working for the limit set by Paris, New York, London and other large cities—ten miles an hour in crowded streets and twenty miles an hour in the country. The members, meantime, are adhering strictly to the present law and have gained the confidence and respect of the Mayor and the public. As a result, prejudice against motor cars is gradually beginning to die out here.

Mr. and Mrs. Chouteau Scott, of St. Louis, will accompany the visiting tourists from Chicago to St. Louis. Both are expert motorists and on the way to Chicago they took turn about in driving their 25-horsepower car. They hold the record for fast auto-driving between these two cities, having made the distance in twenty and one-half hours. Before her marriage Mrs. Scott was Miss Irene Keller, one of the most accomplished horsewomen of St. Louis. She has studied automobiles and is remarkably familiar with their mechanism.

Hints to Touring Car Purchasers—IV.*

Practical Instructions for Driving by Day and Night on Rough, Soft and Slippery Roads.

By JOSEPH TRACY.

NOW everything is presumably ready for the start, and, as this is the owner's initial trip, it is advisable to take along a friend, who may be of assistance in case of breakage or mishap. It is well to bear in mind that, as a general rule, the slower the motor can be run the better. This means that the high gears should be used when possible, and the motor throttled to give the required car speed. The motor, however, should not be run so slowly as to cause knocking in the transmission system, due to the lost motion being taken up suddenly at each explosion. This lost motion or "backlash" either in the gears or connections is caused by the car tending to run faster than the motor. Slow motor speeds save the bearings, prevent overheating, and decrease the consumption of gasoline, oil, and water.

When fairly started attention should be given to the lubrication, to see that the oil feeds properly. Care should be exercised in adjusting the different oil drips, so that each feeds the number of drops per minute as recommended by the car builder. In a new car it is better to use too much cylinder oil than not enough.

RULES OF THE ROAD.

In driving on the road it is a good plan to keep well to the right, and to blow the horn when about to overtake vehicles or animals. Always pass on the left when overtaking, except where the road is very wide, such as the entrance to a park, and always allow as much room as possible, especially when passing horses. When meeting horses also give plenty of room, and do not sound the horn. If the horse is restive it is best to go by at a fairly rapid pace, making as little noise as possible. It is generally better to do this than to stop the car and allow the horse to be led by. Should the horse appear to be getting beyond control of the driver as you approach, open the switch and bring the motor and car to a standstill. A considerate motorist will even jump off his car, especially if the vehicle met is driven by a woman, and will lead the frightened horse past his car.

In some States rules of the road are embodied in the automobile laws and the driver should be careful to familiarize himself with these, and to be guided accordingly.

When overtaking another car, it is not wise to pass if the car in front is not well toward the right, because the road may be obscured by dust, and possibly an automobile or other vehicle coming in the opposite direction just at the instant may cause a collision. Be especially careful to

avoid driving close behind electric street cars. They are sometimes stopped without warning. As they can be brought to a standstill abruptly and as they weigh considerably more than an automobile, the latter is likely to come off second best in an end-on collision.

When driving behind trolleys do not allow the wheels to run in the tracks if the latter are wet, as it is then difficult to get the wheels out of them. Collisions have occurred to automobiles which had been following trolley cars at a considerable distance on wet tracks. Under such conditions should the trolley car stop rather short, and the automobilist apply his brakes to avoid a collision, the brakes would lock the driving wheels and the machine slide into the end of the trolley car.

In an emergency of this sort if the driver tries to turn out of the tracks he will usually find this impossible, and there is nothing left to do but to strike the trolley car. The co-efficient of friction between rubber and a wet smooth rail is comparatively small.

GENERAL ROAD INSTRUCTIONS.

When running on the road, and approaching a turn it is a good plan to slow down, sound the horn and hug the right hand side. Should one swing wide and not slow down, and should a car happen to be coming in the opposite direction a crash would inevitably ensue.

When a car is being driven along an undulating road, in sections where speed laws do not apply, and it is desired to make fast time, advantage should be taken of grades to utilize the momentum acquired on a downgrade to help the car on the next upgrade. On meeting a grade that cannot be "rushed" it is a safe plan to put in the low gear at the foot of the hill and open wide the throttle. If, on the contrary, the car is driven part way up, say on second, and if the motor is unable to pull it on that gear, it will be necessary to change back to the low. Sometimes, however, the low may be missed at the first attempt, and when finally engaged the car may not only have come to a standstill but be rolling backwards, demanding a terrific pull from the motor to get it moving up the hill again. Again, if the low gear is missed, it may be impossible to engage it after the car has started backward, as in this case the teeth of the gears which are to be meshed may be moving in opposite directions. Should this happen, and should the brakes not act well, the car will run away backwards.

The best thing to do in this case is, first, keep cool and then open the ignition switch (stopping the motor), and put the reverse

gear in and allow the clutch to engage. It is obvious that if the brakes and clutch are interconnected, the latter will not engage unless the brakes are off. It requires considerable presence of mind to take the brakes off when running backwards down hill. The car will now have to pull the motor around, which will prevent the former from running wild. If the car continue to run backwards so fast that it is impossible to keep it straight, the next thing to do is to run it into the roadside. In case there is a bank or fence at the side not much damage will be done. If, however, the sides of the road are steep, the only thing to do when the car cannot be guided is to jump.

It may happen that in climbing a stiff grade the gasoline from the tank will not flow to the nozzle in the carbureter. This is more likely to happen when the tank is nearly empty. In this case, obviously, the thing to do is to come up backwards. In machines fitted with a pressure fuel feed system this is not likely to be a source of trouble.

COASTING DOWN A HILL.

When running down a steep long hill, particularly if the route is unfamiliar, it is a good plan to put the low gear in before starting down, and then stop the motor—usually by opening the ignition switch. The hand brake can now be put on sufficiently to disengage the clutch. In a few cars the hand brakes are not connected up with the clutch, and therefore in such cars the clutch would have to be held open by pressure on the foot pedal. In case the brakes fail to hold, the motor may be used as an emergency brake, by allowing the clutch to engage. This will prevent the car from attaining an excessive rate of speed, inasmuch as the movement of the car will rotate the motor against compression. Although the motor will usually be unable to stop the car under those conditions, it will prevent it attaining a dangerous speed.

In some cars in which the ordinary cone clutch is replaced by a clutch of special design, as in the Mercedes, for example, the clutch will not hold securely when the speed of the clutch shaft exceeds that of the motor shaft. Entire dependence must be placed on the brakes in such cars for a safe descent.

When coasting with the clutch out, and when the bottom of the hill is reached, the switch can be closed, the ignition having been previously retarded, and the motor started. If it refuses to start with the spark the clutch may be dropped in for an instant, just long enough to rotate the motor once or twice.

When going up grade it is bad practice to change from a low to a high gear, unless the grade is a very easy one.

DRIVING OVER ROUGH ROADS.

When traveling over rough roads, the driver should sit in such a position that the

* Continued from page 85, issue of July 23.

feet will not be shaken off the pedals. Otherwise, when the clutch is disengaged, as it should always be for a rough spot, and the car allowed to "coast," the feet may be jarred off the pedals, allowing the clutch to slam in, and causing great strain on gears and transmission.

When about to pass over tracks, or holes in the road, the car should have sufficient momentum to carry it over such rough places so as to allow the clutch to be disengaged. This prevents racking the mechanism.

The low gear should invariably be used when starting the car, as this saves both clutch face and transmission. Cars having powerful motors may be started on the third gear, but this does not do the car any good and may do it a great deal of harm.

The practice of throwing in the reverse, and then dropping the clutch in while the car is moving ahead, is one which should never be attempted, as it imposes a heavy strain on the mechanism. The car should always be brought to a standstill by means of the brakes, and not by the motor through the medium of the reverse gears.

Another practice which should be avoided as much as possible, and which is responsible for many broken gears, chains, and twisted shafts, is racing the motor before the car is started, and then dropping the clutch in. Only when the car gets into a hole or into soft mud, or deep sand, should this be resorted to.

DRIVING OVER SOFT GROUND.

When a muddy road is encountered the best way to get through is to put in the low gear before running into the mud. If the car seems unable to get through, the accelerator should be pressed down and the ignition control handle moved to the proper position to cause the motor to exert its full power. If the bad spot does not extend for any great distance, it may be "rushed" through in second speed. This should not be attempted, however, if the road is bad for a greater distance than, say, one hundred feet, because if the car is run through the mud some distance on second speed and the motor is unequal to the task and slows down a change back into the low gear will be necessary. Unless this change can be effected very quickly, the car will probably come to a standstill, calling for a much greater effort from the motor to restart the car. In fact the load may be too great and result in stalling the motor. Then before the motor can be started again, the car may settle and the chances are that it will not be possible to get it out under its own power.

When running through a soft place, it is much easier to go through in a straight line than in a winding course, and for this reason no attempt should be made to turn the front wheels to the right or left, even if by doing so one may avoid a pool of water, or a spot which seems very soft. Should the car get stuck in a soft spot, it

should be jacked up, one wheel at a time, and boards put underneath the wheels. If boards cannot be found, use the floor boards of the machine, one of which should be put underneath the jack to prevent it sinking. The lifting will probably have to be done in stages; that is, when the car has been raised, as much as the jack travels, the car will have to be blocked up and the jack removed. The jack can then be screwed back to the beginning of its travel, blocked up and lifting recommenced and continued till the wheels are slightly above the surface of the ground, when the boards can be pushed under them. Bear in mind that the jack has to be placed under the axles or springs, and not under the frame. If planks can be procured they will, of course, be more serviceable than short boards.

The foregoing remarks apply to sandy roads as well as to muddy or soft roads.

HINTS ABOUT SKIDDING.

As serious accidents often occur when a car "skids" it will pay to be careful when running on wet pavements, particularly asphalt. "Skidding" is more likely to occur when the surface of the road is about half-wet, as it is then in the condition known as "greasy." It will be generally found that a car skids less when the side or emergency brakes are used than when the foot brakes are used. The latter usually act through the differential gear, and the former directly on the rear wheels. A car on which the brakes on the rear wheels are adjusted precisely alike so that they both grip equally, will skid much less, other things being equal, than one on which the brakes are adjusted unequally.

Suppose a car is going down hill on a wet asphalt street, and it is necessary to stop quickly to avoid a wagon or for some other purpose of safety. If the brakes are applied smartly, the rear end of the car will skid around. Putting on the brakes tight enough to prevent skidding, and allowing the car to come to a standstill, is about the only course to pursue. When it is plain that the car cannot be stopped in time to prevent a collision it is better to go into the obstruction head-on rather than broadside. This would happen if the brakes were applied suddenly and forcibly, as the car would skid instantly.

When a car skids remember that putting on the brakes "hard" will make matters worse. About the only thing which can be done is to take out the clutch, keep the brakes gently on and guide the front of the machine in the same direction as the back end tends to go.

When driving a car fast on a slippery street, the best part of the street to drive on is close to the curb. Then if one wants to stop suddenly the front wheels should be turned slightly away from the curb and the brakes applied. The back wheels will then slide against the curb and cannot, of course, skid any further.

NIGHT RUNNING AND LAMPS.

A few words on night running and lamp management are now in order. Do not attempt to make fast runs at night unless thoroughly familiar with the road, and unless the car is equipped with powerful acetylene lamps. The light from these lamps has the effect of magnifying inequalities in the road surface. It makes holes look deeper, and ridges appear higher. This effect is not very objectionable at first, as it tends to make a driver careful. When he gets accustomed to this effect, however, he is likely to become careless, and assume that all inequalities are apparent rather than real.

When about to pass a light in the middle of the road proceed cautiously, as the obstruction may be either on the right or left side. If the front end of the car is swung a little from one side to the other the light from the gas lamps will follow the car movement and show which side is clear. When the car has a swinging "searchlight" this can be used for the same purpose.

Always carry a good red lamp on the back of the machine, on the left side facing in the direction of forward motion. This red light may prevent another driver from running a car into yours from behind. When stopping at night for repairs, or other causes, move the car as much as possible to the right side of the road, and see that the rear lamp shows clear and bright.

TURN OFF THE GASOLINE.

In making repairs at night, if underneath the car or in the vicinity of the gasoline tank, first turn off the gasoline at the tank. Use the gas lamps to work with. Lay them in such a position that the light from the gas lamps will shine on the place you are working on. For this purpose the lamps may be at some distance from the car, and held in position by small stones or pieces of wood.

Gas lamps are sometimes not hung properly on the brackets. The brackets may be inclined forward from the vertical, causing the light to strike the road close to the car, and showing very little light ahead, or they may be inclined backward, causing the light to shine upwards, and leaving the road close to the car in comparative darkness. The remedy in both cases is obvious.

HOW TO TEST LAMPS.

An easy way to test lamps for proper light direction is to take out the car on a dusty road at night and with the lamps alight. Now, another car should be driven by fairly fast to stir up the dust. If an observer is stationed about a hundred feet in front and to one side of the road, he can see very plainly through the dust in just what direction the light is projected.

Lamps should be secured on their brackets by split pins or nuts, and the lugs on each lamp body should be a snug fit on the bracket, or the lamp will rattle.

It is best when leaving the car for the

night to turn off the gas rather than to let it burn out. When left to burn out, the pressure is gradually reduced, as the carbide ceases to give off acetylene gas, with the result that the flame smokes and deposits carbon in the burner passages.

CLEANING THE GAS LAMPS.

Sometimes in cleaning or repairing a lamp the burner is moved out of its proper position so that the light does not focus, and is streaky. When this occurs the lamp should be sent to the manufacturers for readjustment.

When the burner tips get stopped up they usually can be cleaned with a fine steel wire. If the back tip is stopped the front one will throw its flame on the reflector and spoil it by melting, burning away, or cracking the reflecting surface. It is better to run slowly with one lamp than to risk spoiling a reflector.

If acetylene lamps are expected to give satisfactory service, the gas generators should be thoroughly cleaned every time they are filled. A good way to do this is to use a hose and water under pressure, compressing the end of the hose so as to make the water stream out forcibly. See that all the residue is thoroughly removed from the generator before refilling.

NO SOLDERED JOINTS.

When having repairs made to lamps see that joints are riveted and not soldered, as a soldered joint will not stand the heat and vibration. It is always well to have some extra burner tips, as these sometimes get stopped without any warning and cannot be cleared. When replacing a tip, use a small gas pliers and handle it carefully. Tips are very easily cracked when made of lava.

When screwing down a burner make sure the pliers grip the metal base and not the lava tip. Use a little white lead on the joint, and see that when it is screwed in it stands in such a relation to the lamp body as to bring the flame in correct position, viz., parallel to the front glass.

When leaving the car at night, or for any length of time, make it a practice to shut off the gasoline. If this is not done, and if there is a fuel leak, or a flooded carbureter, a fire may be caused by some one carelessly tossing a burning match under the car.

IN CONCLUSION.

Attention to the instructions given in this and the preceding articles will, it is hoped, help the novice to a better understanding of the requirements for the successful operation of a car. There are many points not touched on which will manifest themselves as experience is gained in the use of the car, but reasoning from this experience will usually enable the owner-driver to work out a solution.

In conclusion, it is impossible to write general hints on automobile operation that will be applicable to each individual case.

In details of construction there are wide differences between cars of the same general type, both home and foreign. In all, however, the principles embodied in the construction are alike. Therefore, in cases where a conflict between the form of construction and the suggestions here given is apparent, the reader will be able to reconcile matters by taking the intent of the instructions rather than the letter for his guide.

An Official Auto Trip.

An automobile trip to the Newark watershed at Newfoundland, N. J., situated between Copperas and Kanouse Mountains, was made one Sunday last month by a party of officials from Newark, for the purpose of inspection and for a pleasant trip. The party included Mayor Henry M. Doremus, Police Commissioner Fredrick Castle, Engineer Morris R. Sherrerd, of the



NEWARK INSPECTION TRIP—THE START.

Water Department, in one car; Collector of Customs George L. Smith, Excise Commissioner Dickson and Thomas L. Cressey, in another; William T. Hunt, Winton C. Garrison, Chief of the Labor Statistics, and County Supervisor David R. Johnson, in the third, and Dr. James T. Wrightson, Isaac R. Denman, and James P. Logan in the fourth machine.

It was an ideal day, so far as weather and road conditions were concerned. The start was made from the North End Club, in Newark, and all enjoyed the fresh air, the fine roads and the beautiful scenery as the cars spun along through Montclair and over the Pompton Turnpike. But while running through Little Falls a sharp report caused some excitement and investigation showed that a tire on the car occupied by Messrs. Smith, Dickson and Cressey had blown out. Those officials who were unaccustomed to automobile riding spun along through Montclair, over the Pompton Turnpike, through Little Falls and Butler. No more serious mishaps occurred than the blowing out of two tires, which delayed half of the party until after 3 o'clock for their dinner, which



AN AFTERNOON STOP FOR DINNER.

was eaten at Stockholm. Before reaching Stockholm, however, the car containing Messrs. Wrightson, Logan and Denman was stopped by a constable, who wanted to know why they did not have a license number on the vehicle. After a brief parley, during which Dr. Wrightson gave the constable his card and assured him that the machine was properly registered under the law, but it had such a strong exhaust that it must have blown the tag off, the guardian of the statutes graciously permitted them to proceed.

After appetites had been appeased, the officials examined the Clinton Reservoir and then the trip home was begun. Although the road was rough and steep in places, the only approach to an accident on the homeward journey was the puncturing of two tires on one machine at the same time. Repairs were quickly made, however.

The last of the cars got back at 10 o'clock, and all the occupants expressed their enjoyment of the day's run.



MAKING ADJUSTMENTS ON A GRADE.

Service Test for Motor Wagons.

Details of Performances of Vehicles that Participated in the A. C. A. Contest in New York Last April.

In the accompanying table are summarized the performances of the vehicles that competed in the Automobile Club of America's "Service Test for Motor Wagons" last April, and the awards made by the contest committee, as published in the report of the contest issued by the club last week. This table includes all the information contained in the report except the details of construction of the several vehicles, the causes of the penalized stops made and repairs effected, and the general behavior, which are too extended to be tabulated. The table, however, presents the essentials in convenient form for easy comparison of the individual performances.

The contest committee under whose direction the report was prepared was composed of Messrs. John A. Hill, Emerson Brooks, Roland R. Conklin and S. M. Butler, secretary of the club. In the report to the board of governors of the club, the contest committee expresses appreciation of the coöperation of General Superintendent George W. Slingerland of the American and Westcott Express Companies, in whose service the wagons were placed and operated daily over the regular routes, collecting, transferring and delivering merchandise, prod-

uce, baggage and other express matter during the week of April 4 to 9, inclusive, 1904. Acknowledgment is also made of the courtesy of the H. Clausen & Son Brewing Company, in whose service the Herschmann and Fischer trucks were placed, transporting loads of beer to Yonkers and Flushing alternately.

"It must be borne in mind," says the committee's report, "that in a practical test like the present, in the daily service of a large express company, the loads available for the wagons were constantly varying ones, and the conditions failed to afford the factors necessary for the finer calculations of the cost per ton or hundredweight a mile, which would have been obtainable in a purely theoretical test where a constant load is carried over an accurately measured distance. The practical conclusions to be drawn from the test, however, in the opinion of your committee, more than compensated for this deficiency."

The report contains, in addition to the records of the performances of the wagons, engravings from photographs of the different wagons with descriptions of them, and is illustrated by more than a score of pic-

tures taken during the test and loaned by the several automobile journals.

It is rather to be regretted that there are not incorporated in the report some data of the performance of horse-drawn wagons in the same service over the same routes, for comparison with the motor vehicle service, from which valuable conclusions might be drawn.

SELDEN PATENT MACHINES.

The National Association of Automobile Manufacturers is getting out a "Hand Book of Gasoline Automobiles," which, it is anticipated, will be of much usefulness to all whose business or pleasure brings them in contact with automobiles. The book will contain illustrations and specifications of 88 gasoline automobiles, and an important point is that the information will be given in the form of questions and answers, the same questions being applied to every car in the same order, so that comparisons may be readily made. The information consists of bare technical facts, without comment, making it easy to get at whatever is wanted without delay. The work, which will be ready for distribution about September 1, describes cars built under the Selden patent.

Owing to want of space in the book now under way, which precluded descriptions of a number of machines, another book will be put in hand at an early date to be ready for the Madison Square Garden automobile show, if possible.

OFFICIAL RECORD OF PERFORMANCES OF VEHICLES THAT PARTICIPATED IN THE 1904 TRIALS IN NEW YORK CITY.

Class 1.—To carry 1,000 pounds or under.

No.	Maker.	Motive power.	Hp.	Selling price.	Tare, lbs.	Load, lbs.	Distance traveled miles.	Running time.	Av. Run's speed, m. per h.	Elapsed time.	Deliveries.	Repairs.	Current.	Fuel, gals.	Passenger's Trips.	Awards.
4	Knox Auto. Company.	Gasoline	8	\$1,500	2,065	700	168 3-8	27 36	6	55 20	250	.....	.....	23	24	3d prize, bronze medal.
7	Olds Motor Works. . .	Gasoline	4½	500	1,225	500	228 1-4	20 59	10.8	57 51	282	.....	.....	13	29	1st prize, gold medal.
8	Olds Motor Works. . .	Gasoline	4½	850	1,225	500	212 1-4	24 15	8.8	54 33	265	.....	.....	12 1-4	26	2d prize, silver medal.

Class 2A.—To carry 1,100 pounds.

1*	Commercial Motor Co.	Steam . .	..	.....	.....	1,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Knox Auto. Company.	Gasoline	8	\$1,600	2,280	1,100	187 3-4	21 45	8.6	55 34	271	.....	.....	22 1-2	24	2d prize, silver medal.
11	Pope Motor Car Co. . .	Electric.	3	1,400	2,465	1,100	168 3-4	22 28	7.5	56 55	266	.....	40.8 kw.	.....	22 1	3d prize, bronze med.
12	Pope Motor Car Co. . .	Electric.	3	1,400	2,455	1,100	184 7-8	25 20	7.2	54 28	260	.....	47.9 kw.	.....	219	1st prize, gold medal.

Class 2B.—To carry 2,000 pounds.

2	Charles Rockliff. . . .	Gasoline	15	\$2,500	4,092	2,000	204	28 35	7	60 35	114	4 43	.....	43 1-4	4 14	3d prize, bronze med.
10†	Carlson Motor V. Co. . .	Gasoline	20	2,500	2,830	2,000	11 1-4	1 24	7.8	1 40	6	5	.....	No rec.	3 1	.....
13	Lansden Motor Car Co.	Electric.	.....	2,000	2,760	2,000	180 1-2	26 45	6.7	59 43	102	2 13	192.6 kw.	.....	3 13	.....
14	Electric Veh. Co. . . .	Electric.	.....	5,400	2,000	2,500	192 1-8	23 22	8.2	54 54	176	18	136.6 kw.	.....	3 15	2d prize, silver medal.
16	Cantono El. Tractor Co.	Electric.	4	3,300	2,000	1,700	145 1-8	23 42	6.1	53 41	187	.....	89.3 kw.	.....	3 19	1st prize, gold medal.

Class 3.—To carry 2,000 to 3,000 pounds.

6	Knox Auto. Company.	Gasoline	16	\$2,300	2,815	2,100	235 1-2	25 23	9.2	48 49	146	.....	.....	28 1-4	3 18	2d prize, silver medal.
9	Consolidated Motor Co.	Gasoline	7	2,000	3,450	2,500	239 1-2	25 39	9.3	52 17	150	10	.....	35	3 16	1st prize, gold medal.

Class 4.—To carry 3,000 to 4,000 pounds.

3	Union Motor Truck Co.	Gasoline	20	\$3,500	6,850	4,000	172 7-8	29 30	5.8	60 37	109	7 11	58	4 13	1st prize, gold medal.
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Class 5.—To carry 4,000 to 5,000 pounds.

15‡	Electric Veh. Co.	Electric.	\$3,300	6,700	5,000	150 1-4	24 27	6.1	53 57	127	30	147.6 kw.	4 13	1st prize, gold medal.
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Class 8.—To carry 8,000 to 10,000 pounds.

17	Fischer Motor Veh. Co.	Gasoline.	20	\$5,000	14,050	10,000	187 1-2	33 44	5.5	56 25	76	1 44	124 3-4	4 6	1st prize, gold medal.
18§	Columbia Eng. Works.	Steam...	25	4,500	14,100	10,000	34	4 02	6.6	9 58	1	.....	700 lbs coal	3	.....	.....

* Did not start.

† Withdrew after first day. Engine was new and ran hot.

‡ Towed 11½ miles on first day owing to exhaustion of battery.

§ Withdrew at end of first day. Steamed very badly and glands of engine leaked.

Records Broken in Ostend Week.

AUTOMOBILE week at Ostend, Belgium, began Thursday, July 14, with a five-kilometer contest for touring cars classified by list prices of chassis. There were many competitors, among whom the most notable was Baron de Caters in his 90-horsepower Gordon-Bennett Mercedes. The events were run on the Nieuport-Snaeskerke road, which lies along the coast of the North Sea, connecting Ostend, the Belgian watering resort, with the French frontier with one of the first modern good roads built in Belgium. The road passes through a low-lying country of sandhills intersected with canals. The section of the new road selected for the contests was wide and level, with only two bends, one near the start and the other about five kilometers distant. In the speed trials for racing cars on the subsequent days the second turn necessitated slowing down to avoid accidents.

Strong breezes that on the first day re-

by Rigolly, in his big Gobron-Brillié, who covered the course in 4:39, or at an average speed of eighty miles an hour, cutting 34 3-8

seconds off of the record made last year by Willy Poege in a 60-horsepower Mercedes. Baras, in a Darracq, was only four seconds



SERPOLLET STEAMER WITH VIS-A-VIS BODY ENTERED IN TOURING CLASS.



HANRIOT IN CLEMENT-BAYARD AT FULL SPEED IN THE RACING CLASS.

tarded the tourists, blowing directly in their faces and causing some inconvenience on account of dust, on Friday and Monday materially aided the contestants in putting up a fresh slate of straightaway records.

De Caters naturally made the best time on Thursday in the tourist section with his 90-horsepower Mercedes, his time for the five kilometers (3 1-10 miles) being 2:52 3-5. New records were made in the classes as follows: For chassis costing less than 10,000 francs (\$2,000), Elskamp, 20-horsepower Gobron-Brillié, 4:32 2-5; costing less than 15,000 francs (\$3,000), Kinet, 24-horsepower Rochet-Schneider, 3:47 2-5; less than 20,000 francs (\$4,000), Delville Gardner-Serpollet, 4:17.

Nearly all of the records of 1903 were broken on the second day, July 15, when the racing cars were sent over a ten-kilometer (6.2 miles) course, with a strong wind blowing at the back of the competitors. The Crown Prince of Belgium and the Minister of the Interior were pleased witnesses of the day's sport. The best time was made

slower in the same class. After the results were posted Baras entered a protest, claiming that Rigolly's Gobron-Brillié was overweight for the 1,000-kilogram class. As all the cars were machines that had competed in the French eliminating trials for the Gordon-Bennett, they had not been reweighed. Owing to Baras's claim that the Gobron-Brillié was now overweight, the cars were weighed on Saturday, July 16. In the light car class (480 to 700 kilograms) Hanriot, on a Clement-Bayard, covered the ten kilometers in 4:52 4-5, only 13 4-5 seconds slower than the best time of the day.

The following Monday, July 18, there was a clean sweep of the record slate for the mile with standing start, and cars were timed over a section of the course 609 meters (2,060 feet) long. Rigolly and Baras, in the Gobron-Brillié and Darracq, respectively, were both timed over the 609 meters at 13 3-5 seconds. Baras was timed for a standing-start kilometer in 35 seconds, as against Rigolly's 36 3-5 seconds. Baras



PICTURESQUE OLD TOWN GATE AT BRUSSELS ON THE ROAD TO OSTEND.

made the best time for the mile—:48 3-5—creating a new record, while Rigolly's time in the same class was :50 1-5. Other world's records for the standing mile were: Light cars, Hanriot (Clement-Bayard) :56; Voiturettes, Edmond (Darracq), 1:01 4-5; motorcycles, Rigal (Buchet), 1:16 1-5; motor bicycles, Olieslagers (Minerva), :59 2-5.

Reports of the events on the subsequent days, on one of which Rigolly made the new flying kilometer record of 21 3-5 seconds, have not yet come to hand.

The flying kilometer trials were held Wednesday, July 20. The most eagerly awaited efforts were those of Baras and Rigolly, who had been pretty evenly matched at the highest speeds in the previous contests. Besides these two, there was only LeBlon in a Hotchkiss in the heavy car class. Marvelous speed was attained by all, Rigolly covering the 62-100 of a mile in 21 3-5 seconds, which figures out at a speed of more than 103 miles an hour. Baras, in the

Circuit des Ardennes Won by Heath on a Panhard.

The race for heavy cars over the Belgian Circuit des Ardennes, second only to the Gordon Bennett in importance as an automobile race, was finished Monday, July 25, two Panhard cars taking first and second places, the winner, Heath, averaging 57 1-2 miles an hour over the course of 600 kilometers (375 miles). Teste drove the Panhard that took second place. The time of the winner was 6 hours 30 minutes, the second car finishing only one minute later. Clement (Bayard) was third, Rigolly (Gobron-Brillié) fourth, and Le Blon (Hotchkiss) fifth. The Georges Richard-Brasier was not represented, nor was the Mercedes.

Severe conditions governed the contest. There were no compulsory stops or controls; only those riding in the cars were allowed to fill tanks or do any other work

power. This is the third time a Panhard has captured the Circuit des Ardennes. The course is a seventy-five-mile circuit through Herbamont, Ourthenville, Ramoat, Champlon, St. Hubert, Serpont, Recogne, Verlainem, Neufchateau, Leglisem, Habay-la-Neuve and Martelange back to Bastogne.

1,600 MILES WITHOUT STOP.

La Roche Reaches St. Louis Monday in 158 Hours 28 Minutes.

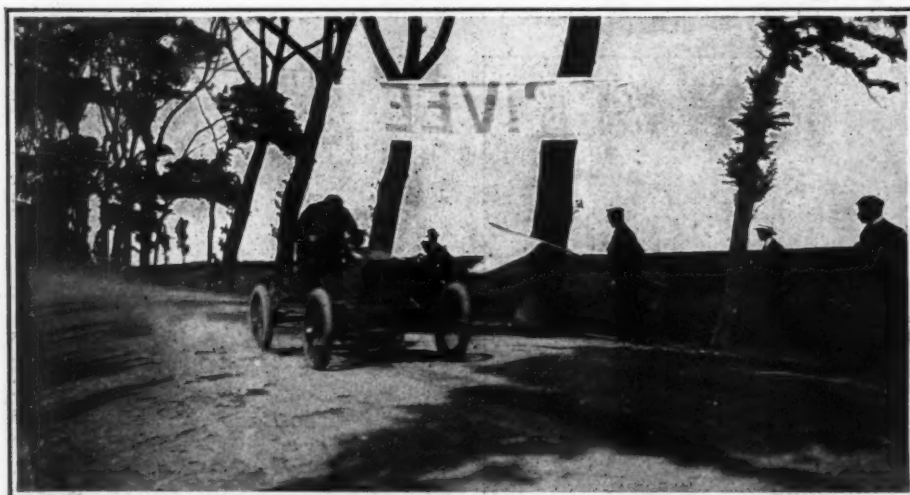
Special Correspondence.

ST. LOUIS, Aug. 1.—F. A. LaRoche and his party arrived here thirteen minutes after midnight Sunday—to be exact, at 12:13 a.m. this morning. They had covered a distance of 1,600 miles in 158 hours 28 minutes without stopping the motor. The distance as given in the A. A. A. tour book is 1,318 miles, but the motorists said that the route they traversed was almost 300 miles longer. They say that the motor did not cease to throb from the time they left New York a week ago lacking nine hours, and it was not permitted to stop running even in St. Louis, as it is intended to make a non-stop round trip of 3,000 miles. The party, which includes, besides Mr. LaRoche, Alexis LeBlanc, Herbert H. Everett, Norris H. Mason and Lee Straus, plan to leave for New York to-morrow (Tuesday).

They followed the route of the A. A. A. run to St. Louis, going through Albany, Utica, Syracuse, Rochester, Buffalo, Erie, Cleveland, Toledo, South Bend, Chicago, Pontiac and Springfield. On the way they had some bad weather and many miles of excessively bad roads. In one place in Ohio it took them five hours to go two miles. The run was not made with an attempt to speed, but was rather an endurance test of the car and engine, which stood it well.

Mr. LaRoche, who is president of the American Darracq Company, of New York, which has one of the principal displays in the foreign section of the automobile exhibition in the Transportation Building, visited the booth to-day and was enthusiastic over the appearance of the display.

Yesterday afternoon a funny incident was witnessed on West Main street; that is, it was funny to the chauffeur and spectators, but not the granger in front of the machine. The granger stood in front of the Jackson & Battle Creek interurban waiting room just as the auto dashed up. He turned and saw the machine coming for him, and commenced to dodge, jumping back and forth in front of the motor. The chauffeur applied the brake, but the auto didn't stop, and the granger sprinted up the street, evidently thinking his sole safety lay in flight, the auto in full pursuit. Completely out of breath he jumped for the curbing and the auto sailed up the street. The granger shook his fist and called out to the disappearing driver, "Say, you ——— old fool, do you want the whole road?" Then the crowd laughed.—*Jackson (Mich.) Press.*



EDMOND GOING A MILE IN 1:01 4-5 AT OSTEND, JULY 18, IN A DARRACQ VOITURETTE.

Darracq, was only 2-5 of a second slower, and LeBlon's time was :25 1-5. In the light car class Hanriot (Bayard) did :26 4-5, and in the voiturette class the time of Edmond (Darracq) was caught at :30 2-5. Among the best times of the day was that of Seguy on a Griffon motor bicycle, :36 2-5. In the touring car section, De Caters and De Jochems, both in Mercedes cars in the class for chassis selling at more than \$6,000, covered the kilometer respectively in :30 and 35 seconds, while Dreye in a Serpollet steamer ran in :34 1-5.

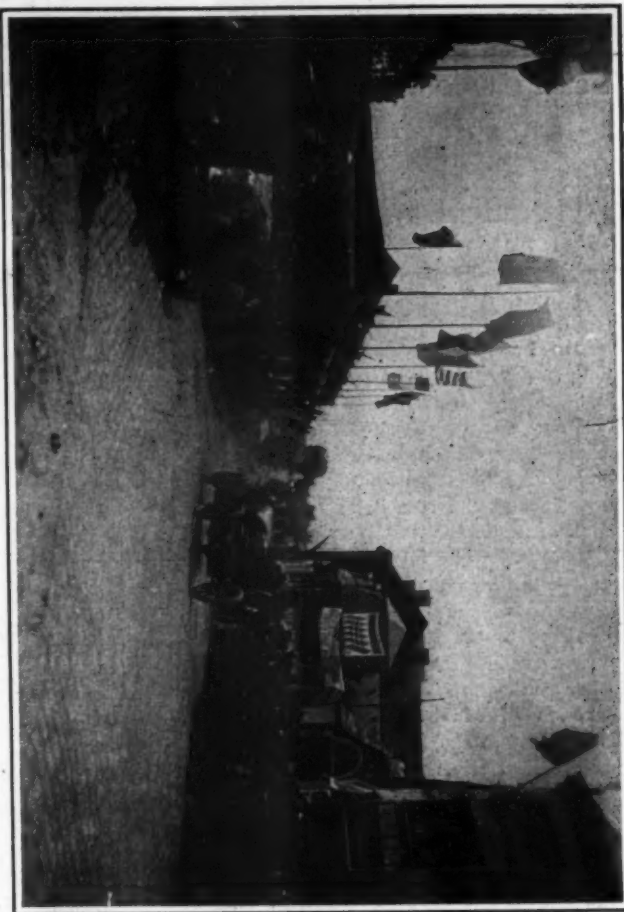
The Police Department of St. Louis has purchased two high-speed gasoline automobiles to be used in overhauling violators of the automobile speed ordinance.

Steamboat inspectors turn from examining hulls to conduct of automobiles on ferryboats, ordering power shut off before embarking. Inspectors have not yet ordered the vehicles equipped with peek-a-boo fire hose and those fine, powdered cork combination life belts and anchors.—*New York Telegram.*

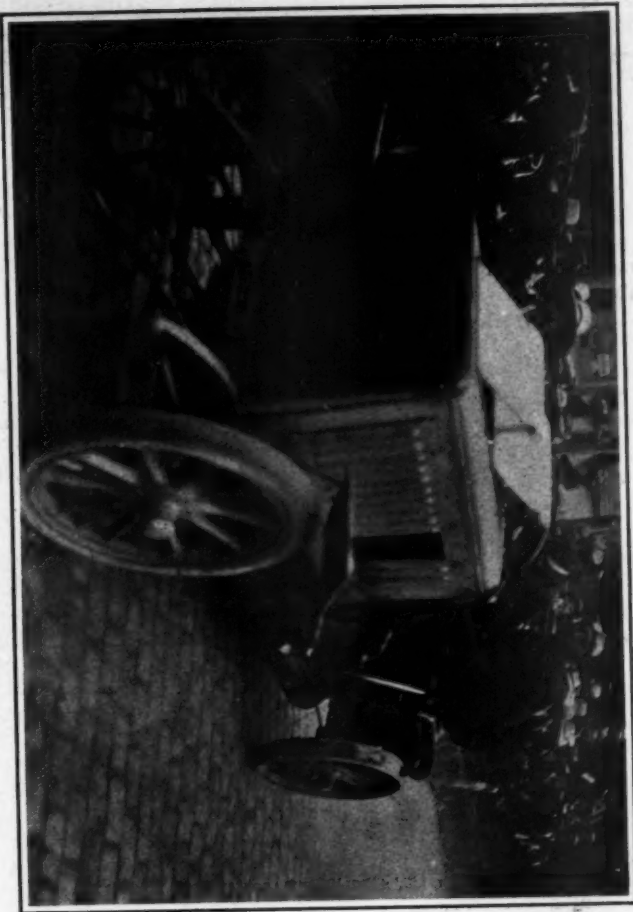
on their machines; cars could not be moved except by their own power; the use of mufflers was compulsory, discharging in such a way that the gases would not strike the ground; and contestants were enjoined to be particularly careful to leave half the road for an overtaking car, so there would be no difficulty in such cases. The roads, while good, are very tortuous and hilly, and the skill of the drivers was severely tested in making some of the turns.

The great race was run the second day of the meeting, racing having commenced Sunday with motorcycle and voiturette contests over a distance of 240 kilometres (150 miles). The weather on both days was perfect, and all the events were carried through without serious mishap. The weighing in took place on the Saturday previous to the races, and owing to the fact that many cars were over the limit of weight and had to be lightened and again weighed, it was a long time before this preliminary process was completed.

Heath, the winner, is said to be an American. The car he drove was of 100-horse-



Rigolly Passing Grand Stand at Bastogne—Jenatry to Left with Broken Car.



Teste, Winner of Second Place, Who Finished Minus Left Rear Tire.
START AND FINISH OF THE CIRCUIT DES ARDENNES, AT BASTOGNE, BELGIUM, AND HEATH AND TESTE, WINNERS OF FIRST AND SECOND PLACES.



Starting the First Cars from Bastogne—Heath, the Winner, in a Packard.



The Winner, Heath, Who Averaged 57 1-2 Miles an Hour for the 375 miles.

Federal Definition of "Fire."

Scientists of U. S. Steamboat Inspection Service Apply its Meaning to Internal Combustion Engines and Compel Drivers to Stop Motors on Ferries.

AUTOMOBILISTS have been given another problem to solve—a problem that has failed to solve itself and that no one else cares to tackle. It is the question of the transportation of automobiles on ferry boats; certainly not a new puzzle. This time, however, it seems to have come up in dead earnest, and must be definitely settled one way or the other. Just now the whole matter is in a state of confusion. Some take it seriously, some disregard it entirely and the rest don't know what to think of it and are simply waiting.

Meanwhile in New York some of the ferry companies have refused to carry automobiles, an exercise of private judgment permitted by the Federal law. As a consequence of these restrictions and prohibitions many automobilists making runs out of the Borough of Manhattan into Long Island have taken to the bridges instead of making the East River crossing by ferry.

There is a Federal law which prohibits the carrying of explosives of any sort on passenger steam vessels. When automobiles began to come into vogue the fuel in their tanks came under the ban, and in order that motor vehicles might not be altogether excluded from the ferries, automobilists in 1901 secured the passage of an amendment, as follows:

TEXT OF FEDERAL LAW.

"An act for the amendment of section 4472 of the Revised Statutes of the United States, an act governing steam passenger vessels, provision prohibiting the carrying of explosives.

"Nothing in the foregoing or following sections of this act shall prohibit the transportation by steam vessels of gasoline or any of the products of petroleum when carried by motor vehicles (commonly known as automobiles) using the same as a source of motive power; provided, however, that all fires, if any, in such vehicles or automobiles, be extinguished before entering said vessel, and that the same be not relighted until after such vehicle shall have left the same.

"Provided, further, that any owner, master, agent or other person having charge of passenger steam vessels, shall have the right to refuse to transport automobile vehicles, the tanks of which contain gasoline, naphtha or other dangerous burning fluids."

SITUATION IN NEW YORK CITY.

Such is the text of the law. Since its passage, so far as New York City is concerned, automobiles have used the ferries as freely as any other class of vehicles, and it seems probable that this beatific state of affairs would have existed to-day had it not been for the burning of the excursion

steamer *General Slocum* and the resulting discovery of loose methods of inspection. An immediate and extraordinarily vigorous barricading of the barn door was commenced after the horse had made his escape. The inspectors suddenly discovered, to their utter amazement, that automobiles were running on and off the ferries under their own power every day in the week and twice on Sundays, and, scarce believing their own eyesight, reported at headquarters what they had seen. Ten ferries were reported, and in the twinkling of an eye each of the ten shut its gates to automobiles, other than electric, unless fires were extinguished or engines stopped before boarding the vessel. Meantime the other ferries were doing a brisk business in automobiles, both steam and gasoline.

INSPECTOR GENERAL UHLER'S VIEWS.

Supervising Inspector General Uhler, of Washington, D. C., of the United States Steamboat Inspection Service, was in this city early in the week and was asked for a statement of the case from his point of view.

"Here is our position in a nutshell," he said. "In the first place there was a law passed prohibiting the carrying of explosives of any sort on passenger steamers, and that law is a mighty strict one. A man couldn't even carry over a can of gasoline in his hand. But when automobiles came along it at once appeared that something would have to be done in order that they might not suffer inconvenience or hardship on account of a law which, though covering them to some extent, was framed before the automobile had taken its place on the road, and was therefore not considered. So this amendment," turning to the act already quoted, "was passed. The law was stretched a point or two for the benefit of those who used automobiles. They were allowed to take their machines on the ferries, and automobiles were transported the same as other vehicles; but the exception was not absolute, it was simply conditional. The conditions imposed were that all fires were to be put out before entering the vessel, and not again lighted until after leaving it. A gasoline motor won't run without a spark, and it won't run without explosions. Now, if sparks and explosions are not fire, I don't know what fire is. Here you have what is practically a carriage carrying a big tank of gasoline, and sparks and explosions going on right next to it.

"Then there are other points. The vibration of one of those machines when standing on a ferry boat with the motor in operation is tremendous, and it is possible that a gasoline tank might be broken, or shaken loose or a leak sprung. A gasoline tank

may leak anyway, and there is always the danger of the leakage becoming ignited and the flame communicating with the gasoline in the tank and blowing the whole thing to atoms."

NOT FAMILIAR WITH CONSTRUCTION.

Explanation was made to the supervising inspector concerning some details of construction and operation of the gasoline automobile, with which he has manifested no practical acquaintance, and, moreover, no desire for any. The impossibility of communication of fire between the cylinder and the gasoline tank was dwelt upon, as was also the fact that the explosions, taking place within the cylinder, are inside of double walls of cast iron; that the dreaded spark inhabits the same place; and that the more a man becomes acquainted with gasoline the more he learns of the difficulty of making it explode, even when he wants it to.

"I am not a practical automobile man," said the supervising inspector, "and maybe that's the reason I can't account for all the automobile explosions you read of in the newspapers. Launch builders come to me every day and tell me their boats are absolutely safe—simply can't make them blow up if you want to. And the automobile people say the same thing. But just the same the papers print report after report of launch and automobile explosions.

THE LAW IS THE LAW.

"But, as a matter of fact, all this has nothing whatever to do with the point in question. The law is there, and we are given no discretion in the matter—simply told to see that it is enforced. The law says that automobiles may carry gasoline on board of steamboats, but no fire. That's all there is to it. If the law was just the opposite it would still be my business to enforce it, and I have no power to do anything else."

Local Supervising Inspector R. S. Rodie believes in the enforcement of existing laws and their removal if they are really objectionable.

"The rigid enforcement of this particular law is the best possible way to get it wiped out," he said. "When automobilists find that they are going to be held strictly to the letter of the law they will bestir themselves to have it replaced with something better, if they can. Naturally they would not take the trouble to do this as long as the existing law was not enforced, and I don't blame them. This particular law certainly ought to be well known, for a copy of it is pasted up in every ferry house. New York is the only place I know of where it is not strictly observed."

NOT ENFORCED BY ALL.

Asked why the law seemed operative at some ferries and not at others, Mr. Rodie said that it applied to all, without exception, and not only to ferries, but to all other steamboats carrying passengers. "It is like this," he said. "When the ten ferries learned through the press that they had

been reported for the infraction of the law, they immediately shut down on allowing automobiles to use their own power on the boats. They did this of their own accord, no notice to that effect having been sent them from this office."

When informed that the Thirty-fourth street-Long Island City ferry, for instance,

subject to a fine for transporting automobiles, and at the same time secure a common sense interpretation of the law, we will be in a position to compel the companies to transport our machines, should they persist in their refusal."

Messrs. Seligman and Niles intended starting almost immediately for Washing-



CONVEYING TROOPS IN ELECTRIC AUTOMOBILES AT THE WORLD'S FAIR PARADE.

carried both gasoline and steam automobiles on Sunday under their own power, Mr. Rodie said he had no official knowledge of any violations of the law with the exception of the ten already referred to.

The Automobile Club of America believes that the word "fire" as used in the act was never intended to apply to the ignition sparks or the explosions within the cylinders of gasoline automobiles, it being evident from the wording that steam machines were the ones against which precautions were being taken. No trouble has ever occurred on ferry boats in New York through fire from automobiles, either steam or gasoline, and the interpretation now placed on the law is so far-fetched and improbable as to be considered ridiculous by all automobilists. The matter was taken up at the meeting of the Board of Governors of the Automobile Club of America on Wednesday, August 3, and it was determined to entrust a special committee with the task of securing from the U. S. Department of Commerce and Labor a more liberal interpretation of the meaning of the statute. The work was placed in the hands of W. W. Niles, counsel for the club, and Jefferson Seligman, who were instructed to communicate with Secretary Metcalf of the Department to see what could be done in the matter.

The president of the A. C. A., Winthrop E. Scarritt, referring to the action of the ferry companies, said:

"They are taking refuge behind the \$500 fine clause, ignoring the clause in the amendment which permits them to use their discretion in accepting automobiles for transportation. If we can secure from the Department of Commerce and Labor an assurance that the ferry companies will not be

ton, in order that the matter might be taken up with as little delay as possible.

Transportation Day at the Fair.

In the land parade on the World's Fair Grounds at St. Louis last Saturday, which was Transportation Day at the Exposition, all the big racing cars from the booths were out in gay attire. Igorrotes from the far away Philippines rode in twentieth cen-



IGORROTES AND OTHER EXHIBITS IN THE PARADE ON TRANSPORTATION DAY.

tury automobiles, and primitive Indians were given seats in tonneaus. It was a far cry from the beating of tom toms to the toot of an auto horn. Fifty automobiles from the American and foreign exhibitions added their share to a magnificent parade.

An automobile passed through here Sunday and caused great excitement among the natives.—*McLeansboro (Ill.) Times*.

COAST RUN IN SEPTEMBER.

Frisco-Los Angeles Endurance Contest Postponed to Await New Cars.

Special Correspondence.

SAN FRANCISCO, July 26.—It has been decided by the executive committee of the Automobile Club of California to postpone the joint endurance run of the two California clubs until September, as several San Francisco dealers wish for time in which to receive and try out new cars. L. P. Lowe, chairman of the executive committee, is now in Los Angeles, where he will confer with the members of the Automobile Club of Southern California and will decide on a date in September.

So much opposition is encountered by automobilists in the Western States and the sentiment of the people runs so strongly against speeding on the high roads, that an endurance run seems a very suitable competition, especially under conditions that make it impossible to run at high speed without incurring disqualification. The ordinary motorist wants a car that can be satisfactorily used for touring.

LAUNCH RACES IN THE ST. LAWRENCE

Special Correspondence.

CHIPPEWA BAY, N. Y., July 30.—Five of the fastest gasoline launches in the St. Lawrence region started in the first race held here under the rules of the American Power Boat Association over a twelve-mile triangular course this afternoon. The race was won in 47:02 by the *Chip*, owner by J. Wainwright, of Philadelphia, and operated by Ernest Sewell, of Bayonne, N. J. Second prize was awarded to *Roma*, owned by Louis Hunt, of Brooklyn, which covered the course in 52:09. The other boats finished in the following order:—*Bubble*, Commodore Englis, of New York, 52:53; *Radium*, G. E.

Campbell, Alexandria Bay, 45:31. The *Kit-ten*, owned by ex-Mayor George Hall, of Ogdensburg, was fouled at the starting buoy. The *Bubble* was the only French type auto-boat entered, and is equipped with a French motor. Wainwright's *Chip* is the fastest launch of her class hereabouts. She was built last spring, and is 27 feet long, 3 1-2 feet beam and has a 10-horsepower Leighton engine. The Brooklyn boat ran a sensational race through a heavy sea.

Correspondence

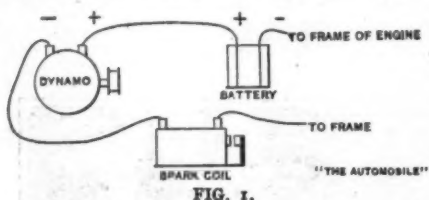
Cure for Ignition Troubles.

Editor, THE AUTOMOBILE.

Sir:—Replying to the query of "H" about electric ignition troubles in the July 23 issue, I send the following suggestions:

The troubles mentioned are undoubtedly due in a great measure to the improper ratio of speed between the engine pulley and the dynamo pulley. The speed of the dynamo is evidently too low, since after attaining high speed at the engine the ignition is perfect as stated. Apparently when the engine is running at slow speed the dynamo speed is not sufficient to generate current at a voltage in excess of that of the storage battery which allows the battery to discharge into the dynamo.

The proper remedy, if this be the case, would be to determine with a speed indicator the speed of the dynamo at the time the engine is running at high speed, then calculate the size of pulley required on the engine or dynamo to maintain the same speed when the engine is running at slow speed. Of course, there should be a governor attached to the dynamo pulley which will release when the proper dynamo speed has been attained. Then again, your correspondent's trouble may be due to the capacity of the dynamo being too low to charge an exhausted cell and operate the spark coil at the same time. The remedy in this case would be a dynamo with a



greater ampere output, but it is quite likely there is some other trouble as the dynamo must have worked properly at some time, when tested by the builder.

It appears from the explanation of the system of wiring shown in Fig. 1 (as much of it as I can understand) that the whole arrangement is very much in need of overhauling.

It is plain from this sketch that the dynamo is working against the storage cell and necessitates a high dynamo speed to overcome the action of battery, and that it is also delivering current to the battery in the wrong direction. When engine is slowed down the battery would, if there were any life in it, discharge through the dynamo, or else reduce the action of the dynamo to such a degree as to make it useless.

This sketch, if it is a correct copy of the system used, shows that the dynamo is used in starting and that the two sources of ignition are in use at the same time.

I doubt whether your correspondent can get satisfactory results from a one-cell stor-

age battery as mentioned, as most spark coils are made for two or more cells of batteries.

He would do well, if sure that he is only using one cell of battery at a time, to make such connections as will put both cells in use at the same time and then arrange the wiring as follows. See Fig. 2.

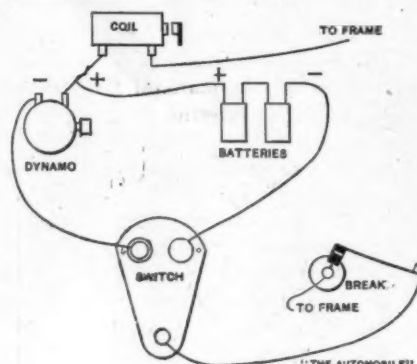


FIG. 2.

Have the two points on the switch close enough together so that in charging the switch lever will not rest on both points. This arrangement allows of the use of the storage battery independently or the dynamo independently, and also allows of charging at any time while the machine is running and at the same time furnishing current for the spark coil.

This is the system in common use and gives satisfaction. The storage battery and dynamo combination is a nuisance in most cases with the average motorist, since the storage battery requires more careful attention than is usually bestowed upon it.

The dynamo requires very little attention beside oiling and the occasional renewal of brushes, the wear and attention to commutator and slipping of belt.

The combination of dynamo and dry cells, the former for continuous running and the latter for starting, gives much better results in ordinary hands.

My opinion is that better results are obtained by the average motorist by the use of batteries for ignition, using two or more sets of batteries with the required number per set and by the use of a two-point or double throw switch.

With this arrangement one set at a time can be used until exhausted, or the two sets used alternately every other day or alternately on a long trip.

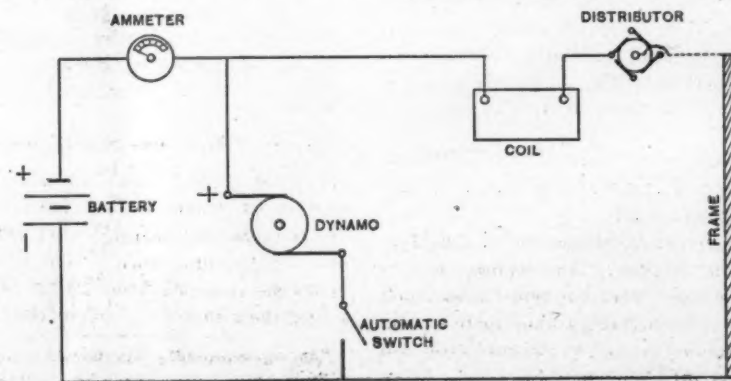


FIG. A.

The alternate use of the dry cell equipment gives more time for recuperation, and keeps the batteries in better condition.

However, the method of using them is a matter of choice. By the use of two or more sets of dry batteries it very seldom occurs that both sets get weakened at the same time (due to carelessness of the operator in not renewing a set when he knows it is exhausted) to such a degree that the operator cannot get enough cells out of both sets to be able to get to a repair shop or even home.

The care of a dry battery is nothing beyond examining connections and tightening of screws, and an occasional test to determine the condition of each individual cell.

In testing a dry cell it is common practise to use an ampere meter, the cells indicating the largest current output being considered in the best condition.

While this may be so in some cases I have found cells with a lower current output give longer service.

In testing dry batteries I have found that the use of a voltmeter gives better satisfaction inasmuch as the current output of different makes varies very widely, while the voltage is very nearly the same with all makes.

The voltage of a dry cell when in good condition varies from 1.4 to 1.5 and is about exhausted when reduced to from 1.2 to 1.3.

I hope this may be of some use to the gentleman in trouble.

C. T. V.

Bloomfield, N. J.

Editor, THE AUTOMOBILE.

Sir:—Your correspondent signing "H," who wrote about ignition troubles in the issue of July 23, has raised some interesting points, and the enclosed comment may be of some help to him.

The batteries are evidently in bad condition. "H" does not state whether there is an automatic switch fitted to the ignition system or not. If such a switch is fitted, it may not be working properly. Should this switch stick, and remain closed, the battery would quickly become exhausted. The reason is, that an alternate path would be open to the current from the batteries, part of which current would flow through the dynamo when the armature of the latter was either standing still, or revolving too

slowly to generate an electromotive force, or voltage, equal to, or greater than the battery voltage. See Figure A. If the automatic switch functions properly, the batteries are at fault, and should be sent for overhauling either to the battery manufacturer, or to some one who does battery repairs.

The accompanying diagram shows the proper way to make the various connections. When connected as shown, the batteries will send current through the ammeter (this should be a double scale instrument, one scale shows battery current, the other scale dynamo current) coil and distributor, or interrupter, to the frame and so back to the negative battery pole. When the dynamo armature is revolved at a certain predetermined speed, the automatic switch closes. At this speed the dynamo will generate a voltage slightly in excess of the battery voltage. Consequently the current from the dynamo is divided into two parts, one part going through the coil and interrupter to the frame, the other part going through the battery, but in the reverse direction, to that which the battery current would travel, if the dynamo were not connected.

Under these conditions the dynamo is charging the battery, as well as supplying current to the coil. Should the dynamo speed drop low enough, the automatic switch will open, and the battery current flow through the coil. If the battery is out of order, the motor will then, obviously, fail to ignite. If an automatic switch is not fitted a hand switch may be used. This must be closed after the motor is started.

The battery may be short-circuited so badly that it will allow all the current generated by the dynamo (at comparatively low speeds) to pass through it. Obviously, under these conditions, no current will pass through the coil and the motor will stop. When the motor is not allowed to slow down too much, the dynamo will generate current in excess of that which goes through the partially short-circuited battery. This excess will, of course, flow through the coil and so keep the motor running.

Changing the pulley on the dynamo shaft and putting on a smaller one will enable "H" to run his motor slower and still use the dynamo current for the coil. An objection to the small pulley is, that on account of the increased dynamo speed the current will be excessive at normal motor speeds and will tend to overcharge the batteries and possibly injure the coils. Your correspondent will not have to modify the present equipment, in order to insure the result intended by the manufacturers.

If the batteries are of sufficient capacity, and in good condition, and if the automatic switch or its substitute is closed and opened at the right time, there is no reason why the present arrangement should not operate satisfactorily, assuming, of course, that the wiring is in good condition.

Although the dynamo and storage battery

system is an excellent one, when properly fitted and handled, I am not prepared to say that it is the best method of furnishing current for ignition. For a motor such as the one described, using dry batteries would seem to us a step backward. T.

New York.

Change of Sprocket.

Editor THE AUTOMOBILE:

Sir:—I would be thankful for some information about lowering the gear of my machine.

I have an automobile runabout, which has a 5-inch by 6-inch single cylinder. It will not climb better than an 8 per cent. grade on the high speed. If I put on an 8-tooth sprocket in place of the 9-tooth sprocket that the machine has on now, what changes would it make in the running for hill-climbing and level?

E. S. M.

Connellsville, Pa.

If an 8-tooth sprocket is put on instead of the present sprocket, which has 9 teeth, it will cause the machine to run slower on both the low and high gears. With the smaller sprocket steeper grades can be ascended, on both gears, than with the present arrangement. With the 8-tooth sprocket when running on level roads, or down hill, the engine will have to make more revolutions per minute in order to maintain a given speed of car, than with the 9-tooth. Therefore, unless you are careful in handling the car your motor will be racing most of the time, when your car is running on the level or down hill. Racing a heavy motor, like the one you refer to, will result in heating it up, and in wearing out the bearings.

Mors Timing Apparatus.

The extreme speeds attained by modern racing automobiles have in a comparatively short time rendered the split second stop watch nearly obsolete as a method of registering their velocity. At such tremendous speeds as these machines attain, when the automobile is timed over a kilometer or a mile at speeds of 60 miles an hour or more, an error of a fraction of a second in the watch, or in the hands of the timer, produces a much more considerable percentage of error than when the instrument is used to time nothing faster than a running horse. The stop watch leaves no record by which an error in reading it can be detected, and its rate is guaranteed only apart from the stops imposed upon it.

The new Mors apparatus, which received the prize offered by the Automobile Club of France for the most successful apparatus of its sort, makes use of a strip of paper which is unrolled continuously by clockwork. It might be supposed that this paper would unroll at a constant speed and would therefore be itself a measure of the lapsed time. Practically, however, this is not the case, and the lapse of time is indicated by dots pricked in it every

fifth of a second by a needle actuated by an electro-magnet. The special chronometer used governs by its escapement an electrical contact finger, by which the circuit in which the electro-magnet is included is made and broken every fifth of a second. This renders the regulating of the paper's movement of no practical consequence, since the time is still accurately registered.

When a vehicle passes the tape another electro-magnet is made to actuate a second needle, causing it to perforate the paper independently of the first. This gives both an exact measure and an exact record of the lapsed time, the exactness being greater as the rapidity of movement of the paper and consequently the interval between the dots is greater.

Autos for Fire Chiefs.

It is now practically certain that within a few weeks New Yorkers will be able to enjoy the sight of Chief Croker dashing to a fire in a modern gasoline automobile, while Brooklynites will line the curbs to watch Deputy Chief Lally being rushed to conflagrations in a similar conveyance. Chief Croker has long held the opinion that the automobile is the best vehicle for this class of work, and even made up his mind as to what particular make of machine he thought was best adapted to his wants. He therefore wrote to the mayor asking to be allowed to purchase in the open market two automobiles, one for his own use and one for the use of Deputy Chief Lally, of Brooklyn, both to be of a make named by the Chief, and to cost \$4,000 each. The Board of Estimate and Apportionment turned this down, however, insisting that the proper method of procedure was to call for bids. Accordingly bids on automobiles to embody the following features were advertised for.

Four-cylinder vertical gasoline motor of not less than 24-horsepower, to develop not less than 1-horsepower for every ninety pounds of weight of vehicle. Body to be of the tonneau type, seating four persons, upholstered in the best tufted leather and ironed for canopy top. Wheels to be of wood, artillery type, not less than 34 inches in diameter, with 4-inch detachable double tube tires. Automobiles to be delivered in 30 days from time of acceptance of bid. Separate bids to be made for New York and Brooklyn. The following offers were received:

For New York—Locomobile Company of America (Locomobile), \$4,000; Auto Import Company (Rochet-Schneider), \$10,000; Winton Motor Carriage Co. (Winton), \$3,000; Duerr-Ward Co. (Royal), \$2,900; Electric Vehicle Co. (Columbia), \$4,000.

For Brooklyn—Locomobile Company of America, \$4,000; Auto Import Co., \$10,000; Winton Motor Carriage Co., \$3,000; Duerr-Ward Co., \$2,900.

New Wayne Models.

Two new models have been brought out by the Wayne Automobile Company of Detroit, Mich.; a 16-horsepower light tonneau machine and a 9 1-2-horsepower runabout, both cars being built on the same general specifications.

The tonneau machine has a frame of pressed steel, the corners being re-enforced with forged steel plates, two to each corner, hot riveted. The drop forged spring hangers, similar in general style to those used on French touring cars, are secured to the frame in the same manner. The semi-elliptic springs are 40 inches long, and are hand-forged. All springs are interchangeable. The wheel base is 80 inches and the tread 56 inches. The motor is of the double opposed cylinder type, the cylinders having

by a single roller chain. Artillery wood wheels, 30 inches in diameter, are used shod with 3 1-2 inch detachable double tube tires. The brake operated by two foot-levers acts on the outside of the differential drum, there being a band on each half of the drum, the braking pressure being equalized by a compensating device. Lubrication is effected by compression grease cups and by a multiple sight feed oiler with six leads. Water circulation is maintained by a positive gear pump, the radiator, of the flanged tube type, being placed at the front of the hood just under the water tank. The tubes are of copper and the flanges square. The gasoline tank, with a capacity of 12 gallons, is under the rear portion of the hood, and in a space between the radiator and gasoline tank is the battery, consisting of two sets of dry cells, six in a set. Jump spark ig-

by a Boston firm. The chassis is the regular Knox chassis of the double-cylinder type, embodying the Knox system of air cooling, side spring suspension, and is fitted with a platform body 8 feet long and 4 feet wide, exclusive of the driver's seat. At the rear spiral springs are used to assist the side springs in carrying the load. The vehicle weighs 2,700 pounds, and has a capacity of 2,500 pounds dead weight, besides two men, and carries fuel for about 100 miles. It is geared to a maximum speed of 15 miles an hour. The wheel base is 8 feet and the wheels are of wood, 32 inches in diameter, shod with 3 1-2-inch solid rubber tires.

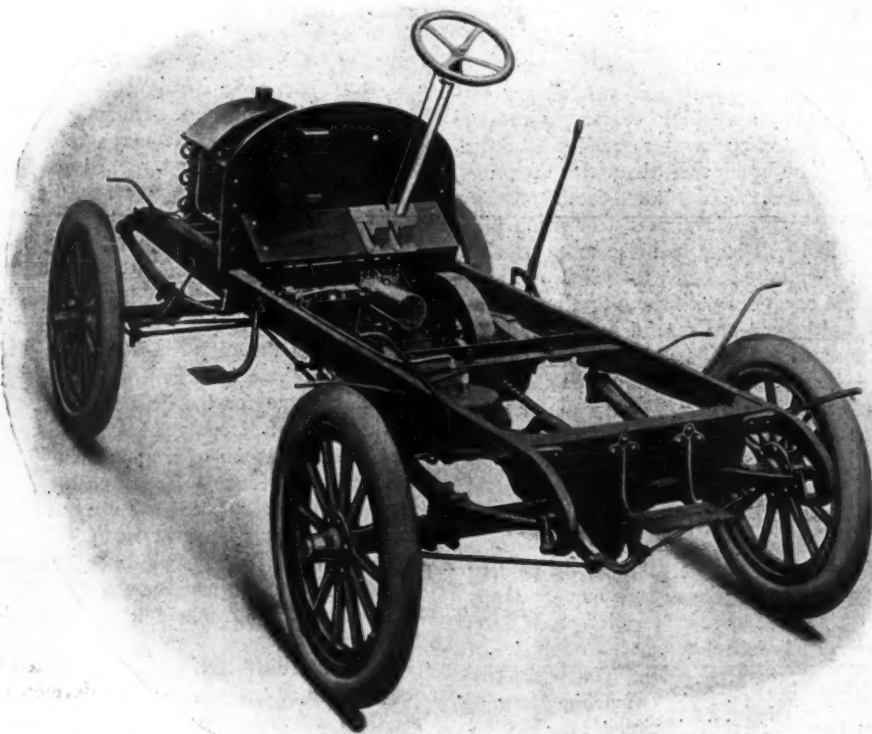
A smaller truck is also built on the single-cylinder chassis, having a platform 4 feet wide and 6 feet long and a carrying capacity of 1,500 pounds. Speed, 12 miles an hour maximum. Both these wagons are fitted with special Timken roller bearings, made very heavy and substantial.

About twenty Knox commercial vehicles of this type are in constant use in and about Boston, most of them being used for suburban delivery service.

The Cameron Car.

The Cameron Car, built by the United Motor Corporation, Pawtucket, R. I., is a light runabout propelled by a single cylinder air-cooled motor placed vertically under a metal hood in front, the front of the hood having a wire netting screen through which the air currents pass to the motor. In addition to this an eight-inch belt-driven fan is employed to assist in carrying away heat from the cylinder. Both valves are placed in the head of the motor, immediately above the piston. The intake valve is automatic and has a diameter of 1 3-4 inches, while the exhaust valve is a quarter of an inch greater diameter, and both are fitted in removable seats. Semi-steel is the material used for the piston, which is very light in weight and has a stroke of 4 inches. The bore of the cylinder is 4 1-8 inches. Weight is also saved by hollowing the wrist pin, which is 3-4 inch in diameter and of steel. Phosphor bronze is used for the main bearings, and also for the entire connecting rod. The crank shaft is 1 3-8 inches in diameter and the bearings 3 inches long. The crank pin is 1 3-8 inches in diameter with a length of 2 inches. The motor is lubricated by splash.

A cone clutch, held in engagement by a spring and released by a pedal, transmits the power to the change speed gear. This is a sliding gear, giving two forward speeds and a reverse, the ratio being 15 to 1 on the low and 5 to 1 on the high gear. The gears are cut from solid steel, are hardened and run in an oil-tight case. The gear shaft bearings are of phosphor bronze. Transmission from the gear box to the bevel gear differential on the rear axle is by shaft and universal joint. Internal expanding ring brakes are fitted to the rear hubs and are operated by a foot lever working on a rat-



REAR VIEW OF CHASSIS OF 16-HORSEPOWER WAYNE TOURING CAR.

a bore of 5 inches and the piston a stroke of 5 inches. Each cylinder head and water jacket is cast integral, avoiding the use of gaskets for packing. The crank case is split horizontally at the centre line of the shaft, the lower part carrying the two-to-one shaft and valve cams, while the upper half is provided with a generous hand-hole on top, covered by a plate. The push-rods are underneath the cylinders, and the intake valves appear to be mechanically operated. The motor is rated at 16-horsepower at 900 revolutions per minute.

Anti-friction bearings are used in all the road wheels, rollers in the rear and balls in the front. The differential on the rear axle is of the spur type, the gears being of steel. Two speeds and reverse are given by the planetary change speed gear, and drive is

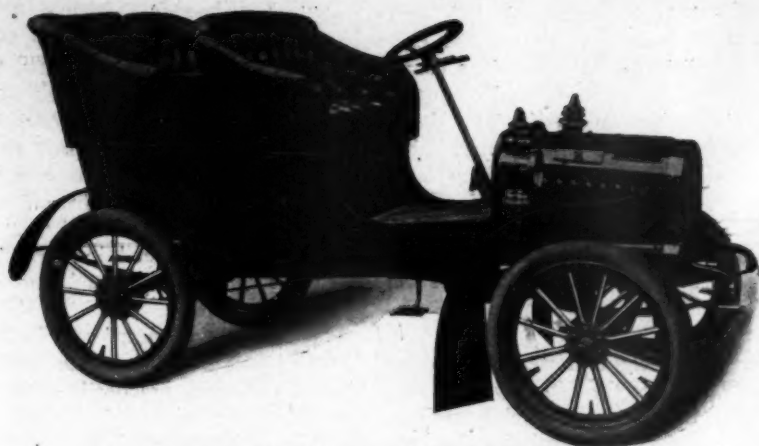
nition is used, the coil being placed on the dash. The traveling radius of the machine is given as 200 miles.

The body, which is finished in carmine, with black trimmings, has individual front seats. All seats are upholstered in buffed leather.

The same description applies to the runabout, except that the motor used in the latter has a single cylinder of 5 1-2 inches bore and 5 1-2 inches stroke, rated at 9 1-2 horsepower.

Knox Stake Truck.

The Knox platform stake truck illustrated herewith was built for the severe work imposed by daily brewery service, and is standing up well under the test. It is used



CAMERON TONNEAU CAR FITTED WITH AIR COOLED MOTOR.

chet which will hold the brake at any point desired. The gasoline tank holds fuel for from 150 to 200 miles, according to road and other conditions. A single lever controls the gasoline and air in the float feed carbureter. The throttle, spark and speed changing levers are grouped on the steering column, directly under the wheel. The wheel tilts, permitting easy ingress and egress.

Other points of this machine are 28-inch wood wheels with 2 1-3 inch detachable tires; steering gear adjustable for back lash; automatic throwing out of the clutch when brakes are applied; foot pump for forcing fresh oil into crank case; large laminated wood mud-guards; wheel base, 76 inches; tread, 46 or 54 inches; weight, 700 pounds, or, with detachable tonneau and canopy top, 800 pounds.

Auto Boat Comanche.

The most extreme development of the auto boat idea thus far produced in this country was launched on July 25 at the Mor-

ris Heights, N. Y., works. The motor, which is said to be of 350 horsepower, has nine cylinders, each 10 inches in diameter



KNOX STAKE TRUCK BODY ON REGULAR DOUBLE-CYLINDER CHASSIS.

by 8 inches stroke. The new boat named *Comanche*, was built for Samuel H. Vandergift, a wealthy Pittsburg manufacturer,

who spends his summers on the St. Lawrence River, where he has already the cruising steam yacht *Cherokee*. The new boat, with a guaranteed speed of thirty miles, will be used about the Thousand Islands.

The hull designed by Charles L. Seabury, is 66 feet 6 inches between perpendiculars and 65 feet on the water line, with a breadth of 6 feet and a draft of less than 12 inches. In appearance it resembles a huge mahogany leech, the stem rakes slightly forward, the fore deck is covered with a turtleback rounding into the sides, and with a moderate height at the stem, the freeboard lessens all the way aft until the low after deck rounds into the sides in continuous curves, which end where they meet the flat bottom at the waterline. The form above water is entirely unlike the ordinary "torpedo-stern" launch, and with the comparatively high bow and low rounded stern there is the suggestion of some huge water worm. The

underwater body is very shoal, with a wide flat section throughout, the run being perfectly flat and of the full breadth of the boat.

The hull is built of three thicknesses, the outer skin of teak below water and Spanish cedar above, all riveted with copper. There are three cockpits, with high coamings of mahogany, the motor being placed in the middle one. The construction of the hull is of the lightest, but with thorough bracing and careful balancing of the motor it is expected to be amply strong.

The motor, specially designed for the hull has cylinders of 10 inches bore by only 8 inches stroke, the weight being thus kept as low as possible. The cylinders are cast in pairs, three sets being bolted together in the forward group while the second group, slightly separated, but has three. The engine base is made of a couple of bars of angle steel, and each cylinder is supported on four light steel standards, about 3-4 inch in diameter, with a diagonal brace to each of half-inch steel rod. While the big cylinders with their oval water-jackets look very heavy and massive, the base and supports are spider-like in their lightness. The motor is supported in the boat by light trusses of angle steel, running fore and aft.



The photograph herewith reproduced shows the new four-cylinder air-cooled Premier tonneau car built by the Premier Motor Manufacturing Company, of Indianapolis. The occupants are: Front seat, H. O. Smith, president, and at the wheel, George Weidley, superintendent of the shops; rear seat, front view, Carl Fisher; side view, Lucian M. Wainwright.



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Advancement in Reliability. Progress is measured comparatively, and when we do not know how far we shall go, we look back to estimate the distance we have come rather than forward to the final destination. Thus, in automobile building, we look back at the annual endurance runs, automobile shows, hill climbing contests and speed trials that mark our progress like milestones on the highway. An excellent opportunity for estimating the advancement made in motor vehicle construction is afforded by the present tour to St. Louis, as the route of the tourists from New York to Buffalo is over the same course as was followed in the endurance run conducted in September, 1901, the lapse of three years serving to emphasize the improvement as a twelve-month could not possibly do. This is one of the pleasing features of the present run.

Among those participating in the present run are a considerable number of persons who took part in the Automobile Club of America's first endurance run three years ago, and by the testimony of some of these it is evident that the road and weather conditions were about the same last week when the tourists were wallowing up along the east bank of the Hudson and through the Mohawk Valley as they were during the previous memorable event. Comparison of results is therefore most fair.

In 1901 seventy-eight competing cars started, of which four were foreign made

and twenty-six were steam vehicles. Despite the hard traveling, the test for endurance or reliability degenerated as usual into a race, but the average speed was only about twelve miles an hour. The daily stages were less than ninety miles, the schedule allowing six days in which to traverse the 500 miles from New York to Buffalo. The run was never completed, being called off in Rochester out of respect to President McKinley, the news of whose death in Buffalo the contestants received in Rochester.

Of the seventy-eight starters, forty-one arrived in Rochester the fifth day after reporting at all the controls. Twelve reached Syracuse with complete records, but did not arrive in Rochester; seven dropped out at or beyond Herkimer and thirteen at or beyond Albany. Compare this with one failure to reach Albany out of sixteen starters from New York this year, and the arrival in Cleveland of all the twenty-three starters from New York and Albany with the exception of this one, which was disabled by the dropping of a wrench into its gear box and not by any inability to negotiate the roads. Only sixteen of the vehicles in the 1901 endurance run carried more than two persons, whereas the majority of the cars this year are carrying from three to five, but the horsepower and weight of the machines now is considerably greater than three years ago.

The improvement in hill-climbing ability that has been made in the three years is silently attested by the almost total absence of trouble on the hills in the present tour, whereas a comic opera scene was enacted in 1901 on Nelson Hill, just north of Peekskill, nearly half of the contesting cars getting stalled at some point on the 2,372-foot climb up the average grade of 9.1-2 per cent., with a maximum grade of 16.15 per cent. for 100 feet. The report of the Nelson Hill climb of three years ago is ludicrous in the extreme, but now no one in the run appears to mind the hills. Unfortunately, for purposes of comparison, the tourists did not go over Nelson Hill this year.



Scorching on the Tour.

Reports from the front by those participating in the A. A. A. tour to Saint Louis confirm the fears of many well-wishers of the cause that the tour would degenerate into a run pure and simple. There is little of the real pleasure tour spirit shown in the actions of those participants who get up in the early hours of the morning to make a trip of say a hundred miles to the next night stop. In the space of about three hours these pleasure-seeking, law-abiding automobilists cover the distance that was scheduled to occupy the entire day, and for no better reason than they want to see their names in the local papers among the first arrivals.

Unfortunately for the well-being of auto-

mobiling this was a lesson that was learned on last year's endurance run to Pittsburg. Then as now the great mass of the townsfolk, newspaper men included, in each of the stopping places on the journey, erroneously supposed that some sort of a speed contest was being held. Consequently the early arrivals got the credit and publicity that naturally rewards the victors. It did not matter in what condition a machine arrived, it was *when* it arrived that attracted the local interest.

It is certainly a "cheap" way for a manufacturer to exploit his product, having by his previous entry practically subscribed to the reasonable rules and regulations that are supposed to control the tour. Beside this conduct, the action of the ordinary auto mucker seems honorable. He avowedly goes out to break the law and takes the chances not only of arrest and fine for speed law infractions, but of far more serious punishment at the hands of a jury in civil or criminal proceedings that might follow any damage to property or injury to other users of the highway. In the present case, however, the scorchers are taking advantage of those living along the route who had been led to believe that the tour would be conducted in an orderly, considerate spirit—a gentleman's affair.

One of our correspondents who followed in the trial of the tourists in New York reports a considerable number of domestic animals dead and dying along the road, in a bloody record of the passage of the cars. Yet there is no word of any action being taken by the A. A. A. officials on the run to discipline or disqualify those who bring a delightful form of sport and pleasure into disrepute. The remedy plainly lies in the hands of those officials who, should the circumstances warrant, could call off the tour as a measure of protest and a public assurance of their sincerity in denouncing reckless scorching and selfish defiance of the rights of other road users.

If no questions of property or individual rights were involved, the rough riding tactics are shortsighted, from the fact that the rural population is well equipped to attempt reprisals not only directly against individual tourists but indirectly against the great body of automobilists by influencing repressive legislation.



Independent Foreign Show.

If present intentions develop into matured actions New York will have two separate automobile shows next winter. A secession movement has been going on for some time among importers of foreign cars in New York, who are dissatisfied with the consideration or want of it shown by the National Association of Automobile Manufacturers. At the last Madison Square Show the foreign built cars were practically buried in the restaurant, where the entire floor space was too small for the proper display of the cars.

actually exhibited, and when from this was taken the space for aisles for the public and accommodation for the attending salesmen the remainder was absurdly inadequate.

Naturally there are two sides to the dispute, and in this case it is not easy to figure out how an acceptable compromise can be reached. On their part the representatives of foreign cars want stands allotted to them on the main floor, taking their chances with the larger home builders for floor space there. Domestic interests fail to see why foreign cars should be given a large share of the best space in the whole exhibition to the exclusion of American cars. They reason that while it is an automobile show, it is primarily an American automobile show and the home product should have first choice. In a country of majority rule the result is not difficult to foresee.

It was plain at the last New York show that the entire available space was inadequate to accommodate all intending exhibitors, and the conditions are not likely to change for the better. The trouble is that the amount of floor space is a constant while the space required is a variable and increasing quantity.

It will be recalled that what was practically an overflow show was held under private auspices last year in the Macy Building on Herald Square, New York. It is not unlikely that this hall will contain the entire foreign exhibit next winter.

A question yet unanswered is whether or not the public will follow the foreign cars in numbers that will satisfy the seceders. Those in the trade who regularly come to the annual display will undoubtedly attend and so will the large number of interested persons who want to compare the foreign and domestic makes. In fact, both the expert and the interested will attend both displays. At the National Show, however, many persons who have a slight present interest in automobiles attend for an evening's entertainment. In such persons a taste is often awakened by the show and when their automobile education is sufficiently advanced, at some later period, they are likely to become purchasers. It is this latter class that is in the doubtful column with respect to an independent show of foreign cars.

While automobilizing recently in Rowayton, a country settlement between Stamford and South Norwalk, Conn., Rear Admiral Schley was in collision with Charles Read. According to eye witnesses of the collision, Read, who is something of a character in the community, was crossing the street in such a way that even an admiral could not be expected to steer clear of him, and it is yet an open question whether the machine ran into the man or the man ran into the machine.

The motor car business is assuming considerable proportions in India, notwithstanding the expense of gasoline, which is, comparatively speaking, very great.

Will Prefer Charges Against Magistrate.

A meeting of the Board of Governors of the Automobile Club of America was held at the clubhouse on Wednesday, Aug. 3. The members of the Board present were Winthrop E. Scarritt, President; Jefferson Seligman, A. R. Shattuck, W. W. Niles, H. R. Winthrop, Geo. F. Chamberlain, Arthur Iselin and Secretary Butler. The following resolutions were passed:

Resolved, That charges be preferred against City Magistrate R. C. Cornell, to the Appellate Division of the Supreme Court of this Department, as being an unfit person to preside on the Bench, as he has by his utterances from the Bench incited citizens of this State to rioting and to the taking of human life; that such utterances have borne fruit is evidenced by the fact that an innocent man driving an automobile, who

was declared by the Court to be not guilty of violating the law, was shot at by a deputy sheriff.

Resolved, That a special Committee consisting of Mr. Jefferson Seligman and Mr. W. W. Niles, Counsel of the Club, communicate at once with Secretary Metcalf of the Department of Commerce and Labor and endeavor to secure from him a fair and liberal interpretation of the present statute so as to permit of the carrying of gasoline motor cars on ferries.

The matter of the shooting at an automobile by Deputy Sheriff Wicks, of Patchogue, L. I., which followed close upon Magistrate Cornell's remarks, approving of the shooting of automobilists, will be taken up vigorously by the Club and carried through to finality.

DECIDES TO FIGHT.

Chicago A. C. Votes to Oppose New Licensing and Numbering Ordinance.

Special Correspondence.

CHICAGO, July 30.—A meeting of the members of the Chicago Automobile Club was held Wednesday evening to consider some course of action regarding the newly enacted city ordinances regulating the use of automobiles. The following resolution was adopted:

"Whereas, It is the sense of the membership of the Chicago Automobile Club that the Chicago city ordinance requiring that numbers be assigned and affixed to automobiles operated in Chicago is an undue interference with the rights of drivers or owners of such vehicles, therefore, be it

"Resolved, That the board of directors be instructed to resist the enforcement of said ordinance through the institution of such legal measures as may be advised by the counsel of the club."

Another resolution referring to licensing was also passed, as follows:

"Resolved, That such legal measures as may be advised by the counsel of the club be instituted by the board of directors with the object of restraining the enforcement of the recently enacted ordinance providing for the licensing of drivers of automobiles."

Judge Haney decided last Friday that the speed gauge used on the automobile of Joseph F. Gunther was better evidence than time recorded by an Evanston policeman with a stop watch, and Gunther was discharged on habeas corpus proceedings. The judge held that Gunther was not liable for a fine imposed under the 12-mile ordinance in Evanston, the prisoner and his associates, Frank P. Smith and Andrew McAnsch, declaring that the speedometer showed only eleven miles an hour when they were arrested.

COAST CONSTABLE EMULATES WICKS.

Special Correspondence.

SAN FRANCISCO, July 26.—Last Saturday Thomas C. Berry, a well-known insurance man of this city, with his brother, W. F. Berry, was driving along the San Anselmo road at about 9 o'clock in his motor car when two constables ordered him to stop. When Berry did not slacken speed Consta-

ble Hughes drew his revolver and began shooting at the automobile. The driver then stopped his car and he and his brother were arrested and taken back to San Rafael, the county seat. On being brought before Judge Magee they were released on bonds of \$100 apiece. They were charged with operating an automobile on a public road of Marin County after sunset, in violation of a county ordinance. T. C. Berry says that he believes the ordinance to be unconstitutional and will resist it. The constable says that he fired at the tires of the car, in the hope of puncturing them.

DEL MONTE DATES FIXED.

August 18 to 22 Selected for A. C. of California Run and Races.

Special Correspondence.

SAN FRANCISCO, July 26.—The executive committee of the Automobile Club of California has decided to hold its annual trip to and race meet at Del Monte in August. The motor cars from San Francisco will start Thursday morning, August 18, and will run through to Del Monte, arriving in the evening. If any of the automobilists desire to do so, a stop may be made at San José or elsewhere for the night and Del Monte reached by making an early start next morning. The races will be held Friday and Saturday, the intention being to complete the program each day before the air becomes chilly. Sunday will be devoted to rest and an easy trip round the Seventeen-Mile Drive, one of the finest marine roadways in the United States. On Monday the motorists will return home.

The program of races will be drawn up on the return of L. P. Lowe from Los Angeles. It is expected that several Los Angeles and Pasadena motorists will come up to Del Monte to take part in or witness the races. An opportunity will thus be afforded for further consultation about the endurance run.

LA ROCHE PASSES INDIANAPOLIS.

A telegram received in New York Thursday morning announces the arrival of F. A. La Roche in Indianapolis on his return trip over the southern route in his non-stop run. At that place he had exceeded the record made some time ago by Edge in England.

IN FIGHTING MOOD.

Settlement of Toll Road Suit Encourages Members of Philadelphia Club.

Special Correspondence.

PHILADELPHIA, Aug. 1.—Despite the conservative advice to the Automobile Club of Philadelphia by its legal adviser, E. A. Ballard, on the question as to whether or not a fight should be made against the Lancaster Avenue Improvement Company in the matter of that corporation's discrimination against automobiles in the way of toll charges, many of the individual members still continue to urge prompt legal action. As the list of members who have been compelled to pay the increased charges grows, the feeling that the matter should be fought to a finish increases.

This attitude of the pugnacious ones was considerably strengthened last Saturday, when it became known that the Springhouse and Sumneytown Turnpike Company, against which Charles Wainwright, a motorcyclist, had brought suit for the return of overcharges, compromised the case by announcing a return to the former rate and refunding the overcharge. This action was brought about after the turnpike company's counsel had practically assured the board of directors that they hadn't a leg to stand on. Orders were immediately issued to all the toll-takers along the pike to rate an automobile runabout the same as a one-horse vehicle and larger machines on the basis of vehicles drawn by two horses.

While this decision is gratifying to those who advocate fighting the Lancaster Avenue Improvement Company, it throws upon them the whole burden of securing a legal decision in the matter. Local automobilists had hoped that the Wainwright case would be fought to a finish in the regular way, but the settlement by agreement of counsel gives the Philadelphia automobilists no precedent on which to base their claims.

However, as the conditions existing on the Lancaster Pike are practically identical with those which obtained in the Wainwright case, several club members are urging an immediate move, confident of either a favorable settlement out of court or an absolute victory.

The case of Samuel Bell, Jr., vs. Radnor Township, which will bring up the question as to whether the State or borough limit obtains in sections which are not built up is listed on the Superior Court docket for an early trial. Judge Johnson, in the Common Pleas Court of Delaware County, decided adversely to Mr. Bell's claims, and the latter, backed by the Automobile Club of Philadelphia, immediately appealed the case to the higher court. Mr. Bell, who was arrested while driving his car over a lonely road in Radnor Township at a sixteen-miles-an-hour rate, contends that as he was well within the twenty-miles-an-hour State limit he was fracturing no law, despite the fact that the township's maximum rate is ten miles an hour—in other words, that where the State and local laws conflict, the State law is paramount. If such an opinion can be written into the State's statute-books it will mean much to automobilists generally in the way of protecting them from the petty persecution of sheriffs, constables and magistrates.

RHODE ISLAND CLUB RUN.

Special Correspondence.

PROVIDENCE, R. I., Aug. 2.—The Rhode Island Automobile Club will hold its second long run of the season Saturday and Sunday, August 6 and 7, when the members will visit Onset Bay, Mass. The start will be "go-as-you-please" from the clubrooms

at the Crown Hotel at 2 p.m. The total distance is fifty-three miles. Supper will be served at the Glen Cove Hotel, Onset, at 7 o'clock. The start for the return trip will be made Sunday afternoon at 2 o'clock, affording the members ample time to visit the beach, take a dip in the sea, or enjoy short runs to the summer home of Ex-President Cleveland, Joseph Jefferson and other distinguished personages. The roads are said to be in perfect condition and it is expected that a large number of the members will participate.

BOSTON MOTORISTS ACQUITTED.

Special Correspondence.

BOSTON, Aug. 1.—To John J. Kelleher, manager of an automobile garage in Salem, belongs the distinction of being the first motorist to be acquitted in the local municipal courts under a charge of exceeding the park speed limit. He and ten other automobile drivers were arraigned in Judge Burke's court last Friday, charged with excessive driving. Several of the ten pleaded guilty and all but three were fined \$10 each.

The exceptions were Mr. Kelleher, George B. Reed, a dealer at 41 Stanhope street, Boston, and Frank E. Straw, of Salem. They pleaded not guilty and presented evidence to refute the testimony of Patrolman Stevens, who had made their arrests, timing their movement by means of chalk marks on the street and a watch. Stevens testified that Kelleher was going at the rate of fifteen miles an hour, but Kelleher stated that this was impossible, as he was demonstrating a car for a customer and was showing him how slowly it could be made to move in Tremont street, which was so congested with other vehicles that it was impossible to display speed. Judge Burke dismissed the case, saying that he would have to rely strictly upon the law of evidence, and as Mr. Beech, the customer referred to, had supported the testimony of Kelleher, the burden was upon the commonwealth to prove the case beyond a reasonable doubt, which it had failed to do.

Similar action was taken in the case of Frank E. Straw, whose denial that he was exceeding the legal limit was supported by Dr. Percy Brigham, of Roxbury. The judge said that he believed the speed test as made by the policeman was unfair, as he was of the opinion that Patrolman Stevens could not see from a point more than 500 feet distant when an automobile passed a chalk mark on the street.

ENTRY BLANKS FOR POUGHKEEPSIE.

Entry blanks are out for the automobile races to be held at Poughkeepsie by the Dutchess County Agricultural Society, on the last day of its sixty-third annual fair, Friday, September 16. The plan of naming each event, as in running horse races, has been adopted and the names are descriptive as well as "catchy."

The entry blank calls attention to the fact that the one-mile track at Poughkeepsie is one of the best race courses for automobiles outside of New York City, being eighty feet wide, clayed and hard, but smooth and well banked. Entries for the races close September 12, with Arthur N. Jervis, Room 94, Tribune Building, New York City, who has been appointed superintendent of automobile racing by the Agricultural Society and who will have full charge.

A rough and ready way to make a comparative test of the lubricating qualities of two oils is to place a drop in the palm of the hand and rub it hard with a finger of the other hand. Good oil will take a lot of rubbing before a dry spot can be made, while poor stuff will soon break down and cease to lubricate.

LONG BRANCH CARNIVAL.

New Jersey Resort to Have Automobile Week This Month.

The dwellers in Long Branch want an automobile carnival of a week's duration, and "Senator" W. J. Morgan, of New York, has undertaken to give them their desire during the week of August 15-20. The Long Branch Town Council has sanctioned the use of Ocean Drive for half-mile and quarter-mile straightaway races on Monday, August 15, and longer races will be held on the following Wednesday and Thursday at the Elkwood trotting track, Long Branch. The week will wind up on Saturday, August 20, with a floral parade. This feature will be reviewed by the Governor of New Jersey, Mayor McClellan of New York and other public men.

But this is not all. There will also be an automobile show in the West End Casino, Long Branch. This building, which adjoins the West End Hotel, is 100 feet long and 80 feet wide, and is said to be well adapted to this purpose. No admission fee will be charged, but invitations will be sent out, and admission will be by ticket only. Exhibitors will be charged for the space they occupy, and Mr. Morgan anticipates that the place will be well filled. Arrangements for the show were made after consulting with the Show Committee of the National Association of Automobile Manufacturers.

BUFFALO'S TWO-DAY PROGRAM.

Entry blanks have been issued for the two-day race meet to be held at Kenilworth track, Buffalo, August 12 and 13, by the recently organized Automobile Racing Association. Entries for the meet close August 8 with D. H. Lewis, manager, 110 Broadway, Buffalo. Following is a list of the events scheduled for the two days:

Friday, August 12.—Ten miles, for machines of any motive power, 881 to 1,432 pounds. Five miles, for machines of any motive power, 551 to 881 pounds. Five miles, for touring cars, full road equipment; three passengers in addition to operator. Five miles, for Ford automobiles; full road equipment; regular stock models; one passenger. Five miles, for Cadillac automobiles; full road equipment; regular stock models; one passenger. Five miles, for Oldsmobiles; full road equipment; regular stock models; one passenger.

Saturday, August 13.—Five miles, for Franklin automobiles; full road equipment; regular stock models; one passenger. Five miles, for Pierce cars; full road equipment; regular stock models; one passenger. Five miles, for Ramblers; full road equipment; regular stock models; one passenger. Fifteen miles, free-for-all; machines of any motive power, from 1,432 to 2,204 pounds. Five miles (Great Buffalo Handicap), for cars owned in Erie and Niagara counties, with full road equipment; regular stock models; one passenger in addition to operator. Handicap limit, three-quarters of a mile. There will also be special match races and record trials.

One of the principal races will be a five-mile free-for-all, without restrictions as to weight, horsepower, motive power or condition, for the Diamond Challenge Cup. In addition to the foregoing events there will be stock car races at five miles for Haynes-Apperson, Stevens-Duryea, Thomas and Queen automobiles and Orient buckboards, all to have full road equipment and to carry one passenger in addition to the operator. There will also be a five-mile motorcycle race. Prizes in all events are silver trophies, valued at \$100, \$50, \$35 and \$25.

INDUSTRIAL

HAS A WOMAN MANAGER.

Ohio Motor Car Company's New Garage Planned by Mrs. Post.

Special Correspondence.

CLEVELAND, July 30.—The Ohio Motor Car Co. recently increased its capital stock to \$100,000, and filed an amendment to its charter, authorizing the handling of stationary, marine and portable gas engines. This company occupies one of the largest and best equipped garages in the central west. It embraces the ground floor and basement of a large building on Huron street, near the corner of Erie, close to the retail shopping and office building district.

The front portion of the ground floor is used as a salesroom, measuring 44 by 60 feet. Samples of the Stearns gasoline, Columbia gasoline and electric and the Cadillac gasoline cars, for all of which the company is local agent, are arranged in an orderly way according to price. Ad-

the various departments of the establishment.

Distinct from the repair shop is the battery room and electrical department. Stewart Rhodes, who is in charge of this department, was formerly with the National Motor Vehicle Company, and is an expert. Batteries are renewed and rebuilt, and motors and controller parts are repaired.

The entire management of the affairs of the Ohio Motor Car Company is in the hands of Mrs. M. A. Post. When the company was formed about two years ago she was interested in it in a financial way, but the original management was not entirely satisfactory, and Mrs. Post, who had experience in other lines of business, decided to take the management into her own hands. She has thoroughly mastered not only the management of the business, but has learned the technical details of the various types of machines on the market, and is in position to discuss the merits of their mechanical features in an intelligent manner.

CHURCH'S LOS ANGELES GARAGE.

Norman W. Church's garage at 116-118 East Third street, Los Angeles, Cal., is a new two-story building, completed and occupied last January, and has a frontage

in the firm name of Church & Crippen, but Mr. Church bought out his partner's interest two years ago and has built up a business that last year aggregated a quarter of a million dollars. He now has the agencies for the Peerless, Stevens-Duryea, Knox and Cadillac, and employs seventeen men, including demonstrators and first-class mechanics, several of whom were taken from the eastern factories where the respective machines are built.

GARAGES AND IMPROVEMENTS.

ANDERSON, Ind.—Clark & Beach have opened an automobile garage at Fourteenth and Meridian streets.

ZANESVILLE, O.—An automobile repair shop is now being conducted by Fritz Brothers on Sixth street.

TRENTON.—Walter Richards has just occupied a new two-story brick structure 40 by 95 feet, located in East State street, and will conduct a fully equipped and commodious garage conveniently located in the heart of the city.

COLUMBUS, O.—The Oscar Lear Automobile Co. now has a fine garage at the corner of Fourth and Gay streets, where the Packard, Winton, Peerless, Cadillac and Wav-



UP-TO-DATE GARAGE BUILT AND OCCUPIED IN LOS ANGELES, CALIFORNIA, BY NORMAN W. CHURCH.

joining the salesroom is a large general office with private offices opening off at the side; also a handsomely furnished waiting room for women, planned especially for women patrons who drive downtown to the theatre or to go shopping.

Between the salesroom and the large garage and storage room in the rear is an electric elevator large enough for the biggest touring car and capable of handling 6,000 pounds.

In the basement are two large rooms for storage, each having washing stands. Another room is devoted to general repair work and assembling, while in a fourth is the machine shop. This is equipped with lathes, planers drill presses and other tools necessary for performing almost any kind of repair work. In this room there is also a 35-horsepower gas engine direct connected to a 22-kilowatt generator which supplies current for all lighting and power and furnishes current for charging the batteries of electric vehicles. There is a smaller gas engine connected to a pump that maintains pressure in a large air tank, from which pipes for inflating tires lead to

of 65 feet. The salesroom is 65 by 40 feet. This room is always quiet and clean, as there is no passing of used cars through it to the garage and repair shop. This is accomplished by having provided on the outside of the building a 14-foot asphalted driveway leading back to an elevator to the second story, where the storage space for "boarders" and the repair shop are located. The boarders' department is 40 by 90 feet, in the front, and the repair shop at the rear is 40 by 150 feet. The elevator is electrically operated.

Compressed air for tire inflating and for cleaning purposes is on tap at many places throughout the building. The gasoline is stored in Bowser underground tanks, from which it can be pumped to the storage room and repair shop. The salesroom is made attractive by wainscoting and pictures of automobile subjects. The accompanying engraving shows the first floor show room.

Mr. Church, proprietor of the establishment, is the pioneer dealer in gasoline vehicles in his territory, having had the agency for the Oldsmobile for the last three years. At that time the business was

erley are handled. On the first floor there is an abundance of storage space and on the second floor the general repair shop is located. The manufacturing department occupies the third floor. The building is well lighted and was built especially for the business. Mr. Lear has a fine charging board and will install a generating plant to furnish current for this as well as for power.

N. A. A. M. MEETING IN N. Y.

A meeting of the National Association of Automobile Manufacturers was held on Tuesday, August 2, in New York, but owing to the absence of the President, Windsor T. White, but little business was transacted. The action of the Show Committee in the arrangement of show dates was ratified. The schedule of dates was given in THE AUTOMOBILE for July 2. It was decided to appoint a committee to confer with a similar committee from the Motor and Accessory Manufacturers' Association on matters of mutual interest. Other matters, including the consideration of show rules, were held over until the September meeting.



NEWS AND TRADE MISCELLANY



Six hundred automobiles have been registered with the Secretary of State at Des Moines, Ia.

Clarence Osgood, of Washington, D. C., has returned home with his family from St. Louis in his Olds tonneau. The family made the trip to and from the World's Fair in their automobile.

An automobile repair station has been opened at 110-112 West Georgia street, Indianapolis, Ind., by the Stutz Automobile and Repair Company. While repair work will be the specialty, the Schebler carbureter will be handled as well.

A movement has been started by enthusiasts of Newport, R. I., to hold an automobile parade in that city in the near future. The committee on improvements, recently appointed by the business men of the city, will take the matter in charge.

The Auto Traffic Company, of Pittsburg, has put in operation its automobile passenger service on the Butler plank road. Three busses are now being used, running every thirty minutes from the end of the car line out the plank road beyond Greensburg.

A petition signed by residents in the Yosemite Valley, Cal., has been presented to the Board of Commissioners of Yosemite Valley, requesting that automobiles be excluded from the roads of the Valley, so long as they constitute a menace to life and safety.

In the recent automobile races held in Halifax, N. S., R. Paterson, with a 1904-model Stevens-Duryea, was awarded a medal for the championship of the Maritime Provinces. The races were run on a half-mile track, and the time for five miles was 10:06.

David R. Francis, president of the Louisiana Purchase Exposition, is an ardent automobile enthusiast, and is watching the St. Louis tour with interest. He is also a good roads advocate and favors the endurance run because of what it will do for the betterment of our highways.

The first arrest under the new automobile ordinance of Jacksonville, Fla., was that of Leonard C. Moore, secretary of the Florida Automobile Club, charged with running his machine at a greater speed than twelve miles an hour, the maximum allowed within the city limits.

The auto-boat *Vingt-et-Un*, built throughout by Smith & Mably, New York, has won in each of the five races in which she has been entered, and the builders state that she will be entered in every race to which she is eligible during the boating season. Her best speed was 22.45 miles an hour.

J. H. Bonday, who has completed a trip from Baltimore to St. Louis in his 1904 Winton car in fourteen days, averaging a daily run of 100 miles, reports no accidents and only two punctures. He has shipped the car to Denver for Samuel Cupples and D. A. Milligan to use in a mountain trip.

The most complete exhibit of storage batteries ever made is made at the St. Louis Exposition by the Electric Storage Battery Co., of Philadelphia, in Section 20, Electricity Building, where are shown Chloride Accumulators for electric automobiles, for car lighting, for central station lighting and

power, for railway service, for isolated lighting and power, for telephone and telegraph and for laboratory service.

Every preparation is being made by the St. Louis garages to take care of the machines of the tourists upon their arrival next week. A new wing 125 by 54 feet has been added to the Halsey garage, and the A. L. Dyke Supply Company has put a ball-bearing turntable in the machine shop in the rear of its salesroom. All the garages report steady sales to Western buyers.

The first automobile tour from San Francisco to the Nevada mining town of Tonopah was recently made by Harry A. Lemmon, of San Francisco, covering the distance in four days. The route taken was by way of Tallac, Lake Tahoe, Carson City and Soda Springs, scaling the 6,900 feet ascent to the mountain summit. The trip was a rough one, but made without a mishap.

The Smith & Mabley auto-boat *Challenger* which was sent to England to compete for the Harmsworth cup, has an official record of 26 1-2 miles an hour, while the smaller Smith & Mabley launch, *Vingt-et-Un II*, which has one-half the power of the *Challenger*, travelled at the rate of 23.83 miles an hour for twenty nautical miles at the Atlantic Yacht Club races on Saturday, July 30.

A peculiar accident happened to an automobile in Wilmington, Del., a few days ago. George H. Ward, proprietor of a local plumbing establishment, was driving his machine cautiously along King street, one of the principal business thoroughfares, and just as he was about to cross the street car track behind a car, the car started backward and ran Mr. Ward down, badly damaging the machine and injuring the occupant.

A new automobile journal has made its appearance, hailing from Kansas City, Mo., bearing the name of *Motors and Motoring*. It is to appear monthly, the first number being the July issue, and containing some breezy reading matter, served up with true Western energy and "go." The legislative craze, touring, automobile troubles, garages, motorcycles and technical matters are dealt with, as well as current news and a lot of interesting items covering every phase of automobilism.

Following the application of the Lackawanna Motor Company, of Buffalo, for voluntary dissolution last week, and the appointment of William C. Carroll as receiver, a petition was filed by creditors in the United States District Court last Friday, asking that the company be declared an involuntary bankrupt. U. S. Judge Hazel has appointed Mr. Carroll receiver for the company on the bankruptcy petition and a meeting of creditors is to be held soon.

A handsome metallic sign about 12 by 18 inches in size has been put out by The Diamond Rubber Company, advertising Diamond "Motor Tires." It does not say whether the tires are for boat motors or for automobile motors, but in either case they are certainly an innovation. The sign is really a very attractive one in color and design. In a white diamond in the center there is a large reproduction of a section of an automobile wheel rim and detachable tire. It would make an attractive wall decoration for a garage or office.

A special building is being erected by the B. F. Goodrich Company, of Akron, O., to be used exclusively for the housing of the automobiles owned by the officers and some of the employees of the company. A man will be placed in charge of the building who will clean, oil and generally care for them. It is thought that more cars are owned by the officers and employees of this company than by those of any other single concern in the country.

With \$35,000 in gold, C. P. Cole, president of the Lancaster, O., bank, made a dash in an automobile from Columbus to Lancaster a few days ago, arriving in time to prevent the bank from closing its doors in the face of a run. Hearing by telephone of the trouble, Mr. Cole secured the money from a Columbus bank, but missed his train. He hired an automobile from a Columbus dealer and with I. F. Kieseewetter made the run of forty miles in one hour 28 minutes.

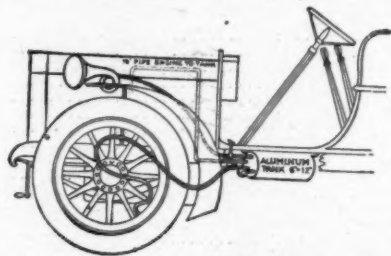
Tours to New England are becoming popular with Philadelphia motorists. Rodman Griscom, of Haverford, a pretty Quaker City suburb, is touring to Watch Hill and Narragansett Pier, R. I. Samuel Heebner, of Chestnut Hill, will spend a fortnight on a trip through New England, stopping en route in New York City and Boston. William Dick, of Dick Bros. & Co., will take in New York City, Narragansett Pier and Boston in a ten-day jaunt, while H. Bartol Brazier, secretary of the Automobile Club of Philadelphia, has just returned from a two-weeks' trip to Kennebunkport, Me.

Arrangements are being perfected for a four-days' summer carnival to be held at Spring Lake, N. J., August 17 to 20 inclusive. The program as now planned will include an automobile parade and races, golf and tennis tournament, coaching party, aquatic sports and fireworks, closing with an automobile dinner and grand ball at the New Monmouth and Essex and Sussex hotels. Those in charge of the arrangements include some of the most prominent citizens. Efforts have been made to interest automobilists all along the coast from Point Pleasant to Long Branch in order that a large entry list may be secured. A small entry fee has been fixed and suitable prizes offered in the several events. Machine owners desiring to enter this meet can obtain full particulars by addressing Loren R. Johnston, Essex and Sussex Hotel, Spring Lake.

A certain New York city policeman is strongly of the opinion that chauffeurs have no sense of gratitude. The man with the club found an automobile on Park avenue at 166th street, about 5 o'clock one evening, and, seeing no one in attendance except a flock of children who were doing the usual stunts with the horn, decided that the machine had been left to its fate and mounted guard over it. It was a beautiful study in still life. After a while, however, the preserver of the peace wearied of his job and sent for a patrol wagon to haul the automobile to the police station, which was done, and the cop's mind was easy once more. Along toward 10 o'clock an excited chauffeur blew into the station demanding an explanation of the removal of his car, which he had just left "temporarily" while he got some repair materials to fix a slight break. And even when told all about it he failed to see that the police had done him a favor.

INFORMATION FOR BUYERS.

HORN BLOWER.—Automobilists who want an easier method of sounding their signal horns and inflating their tires than the plan at present in vogue should examine the device put out by the Gas Engine Whistle Company, 1133 Broadway, New York City. This consists of a small tank, 6 inches in diameter and 12 inches long, made of aluminum, which is connected with the cylinder of the gasoline motor by a pipe containing a check-valve. The opening is exceedingly small. When an explosion takes place a minute quantity of gas finds its way into the tank, where it is kept under pressure until wanted for use. By



pressing a foot button a whistle can be blown, and a hose connection is provided for inflating tires. The same outfit is used with some modifications, for sounding whistles in motor boats. A booklet issued by the manufacturers describes it.

STEAM TRUCKS.—Steam trucks of two and five tons capacity, built on the Herschmann system, can now be supplied by the Columbia Engineering Works, William and Imlay streets, Brooklyn, N. Y. Trucks built on the Herschmann system are used in various parts of the world, and are giving satisfaction. They are substantially built and of simple design. The vertical boiler is located at the front, and is usually arranged to be fired with coal, although the burner may be adapted to use any desired fuel. The average steam pressure is 180 pounds, and the construction of the boiler is such that an explosion is practically impossible. The coal is fed to the fire through a central magazine, and one charge will last for a considerable time. Enough fuel can be carried on the wagon to last for about fifty miles. The water supply will last for ten miles, when it may be renewed from any convenient source of supply by means of a steam water lifter. The engine is of the cross compound type, and will develop extra power in case of emergency. The two ton truck has a 15-horsepower engine, while the five ton vehicle engine is of 25 horsepower. The engine, and, in fact, all the mechanism, is completely enclosed and runs in oil. The engine may be disconnected from the wheels and run as a stationary engine if desired, and the heavier vehicle can be fitted with a windlass gear driven by the engine. One man can attend easily to the entire operation of the truck. Any type of body can be supplied, such as omnibus, tip-wagon, van or platform. Speeds can be arranged to suit purchasers, but the company recommends eight miles an hour for the light, and six miles an hour for the heavy vehicle.

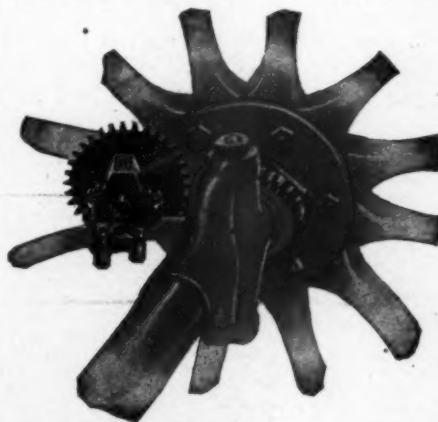
CHAIN LUBRICATION.—"The Proper Care of Driving Chains" is the title of a folder that is being sent out by the Joseph Dixon Crucible Co., of Jersey City, N. J. This tells of the particular qualities of Dixon's motor chain compound that suits it for the lubrication of heavy automobile chains and gives directions for its use. The compound, which consists of a mixture of

Dixon's special lubricating graphite No. 635 with neutral animal and mineral lubricants is molded into hard, oblong cakes weighing about three pounds, and wholly prevents wearing of the rollers and pins, does not gather dirt and dust and is not squeezed out. The method of applying it is to thoroughly clean the chain with benzine and, after drying, immerse in a pan of melted compound.

REMODOELLING CADILLACS.—The Auto Rebuilding Company, 1530 College avenue, Indianapolis, Ind., is turning out a set of parts for remodelling model A Cadillac automobiles, and, as the illustration shows, the machine is hardly recognizable in its modified state. The wheelbase is lengthened, tonneau raised, dash-board added and a metal hood of the French type, with brass trimmings, completes the transformation. The radiator is raised and placed in a vertical position. The fittings supplied by the Auto Rebuilding Company consist of forgings, fitted and drilled, steel for lengthening frame, dashboard, steel and brass hood, hose for water connections, frame, plates and bolts for raising the tonneau, and, lastly, a series of photographs showing exactly how to do the work, which, it is claimed, can be accomplished by any good blacksmith or carriage builder in 24 hours.

EXTRA RADIATORS.—The Bliss-Chester Company, of Providence, R. I., states that it has furnished quite a number of tubular radiators for attachment to high-powered cars which have experienced trouble from overheating during the hot weather. These auxiliary radiators are usually placed in the rear of the car, underneath and out of sight, and connected in series with the cellular cooler.

VEEDER ODOMETERS.—The Veeder odometers attached to 1904 automobiles are, in most cases, driven by gears instead of the old star wheel and striker method. The new drive is said to be more mechanical and less liable to damage. The



gears are of bronze and steel. The engraving shows the general arrangement of the odometer and driving gears as applied to a runabout.

CYLINDER CASTINGS.—The Manufacturers' Foundry Company, Waterbury, Conn., makes a specialty of intricate cylinder castings for builders of automobiles and motor boats, and lays stress on the smoothness, strength and uniform thickness of the castings. Cylinders can be supplied either machined or in the rough, and the founders state that they have exceptional facilities for the prompt handling of large orders. A

folder gives a number of illustrations of the intricacy and uniformity of the work turned out.

ACETYLENE BURNERS.—The William M. Crane Co., 1131-1133 Broadway, New York, is sole United States agent for Bray's patent acetylene burner. The main advantage claimed for this burner is that it will not carbonize when the gas is turned down, thus not only lengthening the life of the lamp, but economizing in the use of carbide and allowing one charge to be used for a



longer time than would be possible otherwise. Bray's burner is made in two forms—a double burner, which gives a broad, flat frame for powerful illumination, and a single burner giving a straight jet, for use in small lamps and where not so much light is required.

DUST DEFLECTOR.—A dust deflector brought out by W. H. Brown, 124 W. Jackson Boulevard, Chicago, consists of a pair of light rolled steel plates, enameled to match the car, which can be attached to the tonneau body in such a way that they follow the curve of the seats, extending partly around the sides back of the tonneau without obstructing the door. Through the spaces between the shields and the back of the seats clean air is forced by the forward movement of the car, and this current blows the dust downward and away from the car and its occupants. The shields are attached by means of brackets and do no interfere with the fitting of hampers or canopy top. A booklet is issued illustrating and describing the device.

ROSE CARBURETER.—The Rose Manufacturing Company, Bradford, Pa., is manufacturing a carbureter, or rather a mixing valve, which is designed to combine simplicity, compactness and reliability, and to supply the motor to which it is attached with a proper mixture throughout the entire range of speed. The gasoline feed adjusts itself automatically, the throttling being done on the air inlet.

TRADE NOTES.

Holmes Brothers, Danville, Ill., have secured the agency for the Overland automobiles.

Block Brothers have secured the agency for the Pope-Hartford automobiles at Mobile, Ala.

The Trenton, N. J., agencies for Pope-Toledo and Pope-Tribune cars have been taken by J. E. Broadhead.

The New York City branch of the Apperson Brothers Automobile Company has recently removed to 43 West 66th street.

The name of the Richmond-Jarvis Company, automobile dealers of Grand Rapids, Mich., has been changed to the Richmond-Jarvis-Vandecar Company.

Contract has been let for the erection of a new block on Federal street, Springfield, Mass., the ground floor of which will be occupied by Mr. Schick as a repair and storage station.

A. J. Smith and J. B. Stevens, of Springfield, Ill., have formed a partnership under the firm name of Smith & Stevens, and will handle automobiles, having secured the Central Illinois agency for the Elmore cars.

The W. H. Barger Auto-Livery Co., formerly on East Wayne street, South Bend, Ind., has removed to new quarters in the Dixon W. Place block, which has been erected especially for the purpose.

G. H. McGregor, of Walkerville, Mich., is organizing a company for the manufacture of automobiles. The company will use the building now occupied by the Walkerville wagon works, as the latter concern will remove to West Lorne in the early fall.

The Buckeye Motor Co., at Gay and Fourth streets, is one of the growing concerns of Columbus, O., having enough orders ahead to keep its shops in operation all summer. The company makes the motors for the Imperial, manufactured by Rodgers & Co., and recently booked an order of fifty machines for a Chillicothe company which is manufacturing a light touring car. It is altogether probable that the facilities will have to be increased before another season, as the prospects are good for a rapidly growing business.

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